DESIGNJET T120/T520 ePrinter Series

Service Manual

Using this manual

This service manual contains information necessary to test, maintain, and service the following:

HP Designjet T120 Basic Printer 24 inch	CQ891A
HP Designjet T520 Pro Printer 24 inch	CQ890A
HP Designjet T520 Pro Printer 36 inch	CQ893A

For information about using these printers, see the user's guide.

Readership

The procedures described in this service manual are to be performed by HP Certified service personnel only.

Part numbers

Part numbers for printer service parts are located in Parts and diagrams on page 126.

http://www.justmanuals.com

Table of contents

1 Printer fundamentals 1

Overview 1
Using the front panel 2
Start-up sequence 3
Subsystems 5

2 Troubleshooting 34

Printer troubleshooting flowchart 35
Basic printer troubleshooting 36
System error codes 39
Paper troubleshooting 61
Communication troubleshooting 66
Ink-supplies troubleshooting 70
Print-quality troubleshooting 83
Update the firmware 97

3 Support menus 101

Entering the support menus 102
Support menu 104
Extended Support menu 124

4 Parts and diagrams 126

Introduction 126
Printer support 127
Covers 128
Roll covers 129
Right-hand assemblies 130
Left-hand assemblies 132
Carriage assembly 134
Paper path (front) 136
Paper path (rear) 137
Roll supports 138
Sensor Kit 139
Miscellaneous parts 140

http://www.justmanuals.com

5 Removal and installation 141
Introduction 143
Customer Self Repair parts 145
Videos available 146
Recommended checks after replacing parts 146
Top Cover 147
Front Cover 150
Right Cover 153
Ink Cartridge Cover 156
Left Cover 158
Roll Cover 160
Back Cover 163
Front Panel 165
Front Panel Cable 171
Central Cover 172
Upper-Roll Paper Guide 177
Left Roll Support 180
Right Roll Support 185
Top Cover Sensor 188
Top Cover Sensor Cable 191
Encoder Strip 193
Ink Cartridge Cover PCA Assembly 198
Power Supply 202
Main PCA 205
Paper Motor 211
Encoder PCA and Index 213
Encoder Disk 217
Trailing Cable 220
Service Station 227
Prime Pump 233
Carriage and Belt 236
Carriage Belt 243
Right Gear Train Module 245
Starwheel Assembly 247
Output Shaft 249
Output Tray 257
Multi-Sheet Tray Assembly 260
Multi-Sheet Tray Assembly Extensions 261
Output Platen 263
Carriage Motor 268
Cutter Assembly 272
Cutter Guide 279
Out-Of-Paper Sensor 281
Out-Of-Paper Sensor Cable 284

Output Tray Sensor Assembly 286
Output Tray Extender Sensor Cable 289
Carriage Line Sensor 293
Bundle Board 297
Bundle Board FFC cable 299
Pinchwheels 304
Left Spittoon 310

6 Preventive maintenance 313
Preventive maintenance 314
Preventive maintenance kits 320

7 Appendices 323
Important links 324
Front-panel home screen and menu map 325
Support menu tree 335
Extended Support menu tree 336
How to check whether your computer is connected to your network 337
Wireless troubleshooting report error cases 340
CSR fliers 351

http://www.justmanuals.com

1 Printer fundamentals

- Overview
- Using the front panel
- Start-up sequence
- Subsystems

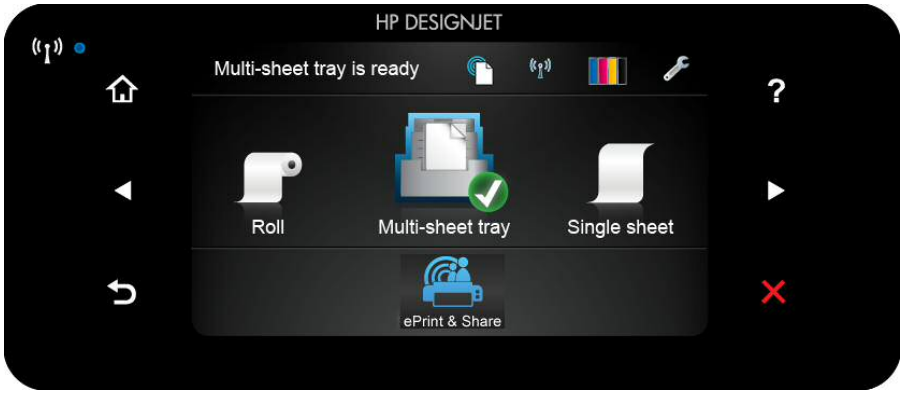
Overview

Feature	HP Designjet T120	HP Designjet T520	More information
Paper source	Roll and multi-sheet tray		See the user's guide
Hardware differences	Stand as an accessory, no roll cover	Stand in box, roll cover	
Connectivity	Wi-Fi, Fast Ethernet LAN, USB		Important! LAN and Wi-Fi are not compatible
Web Services	Automatic firmware upgrade HP Designjet ePrint & Share Printing by email		The printer needs to be Internet-connected: Web Services do not work with a USB connection. For some configurations, the latest firmware release is needed. Manual firmware upgrade is available in both printers via HP Designjet Utility (Windows) or HP Utility (Mac OS). The same firmware file is used for T120 and T520.
Speed	70 s per page on A1/D	35 s per page on A1/D	
Resolution	Up to 1200 × 1200 dpi	Up to 1200 × 2400 dpi	
Memory and languages	256 MB, HP-PCL3 (processing in printer)	1 GB, HP-GL/2 (processing in computer)	
Supplies	HP 711 29 ml Cyan, Magenta, Yellow HP 711 38 ml and 80 ml Black		Ink cartridges and printhead can be replaced by the customer.
	One on-axis printhead for all colors		

http://www.justmanuals.com

Using the front panel

The front panel is a touch-sensitive screen with a graphical user interface; it is located on the front left of the printer. It gives you complete control of your printer: from the front panel, you can print, view information about the printer, change printer settings, perform calibrations and tests, and so on. The front panel also displays alerts (warning and error messages) when needed.



The front panel has a large central area to display dynamic information and icons. On the left and right sides you can see up to six fixed icons at different times. Normally they are not all displayed at the same time.

To the right of the front panel is the Power key, with which you can turn the printer on or off. The key is illuminated when the printer is on. It flashes when the printer is in transition between on and off.

Left and right fixed icons

- shows the status of the wireless connection: if the blue light is shining, the wireless connection is active.
- Press to return to the home screen.
- Press to view help about the current screen.
- Press to go to the previous item.
- Press to go to the next item.
- Press to go back to the previous screen.
- Press to cancel the current process.

Home screen dynamic icons

The following items are displayed only on the home screen.

- At the top left of the home screen is a message telling you which paper source is active.
- Press to view Web Services status and display your printer's email address.
- Press to view connectivity status information and to perform network configuration. If a network cable is connected, is displayed instead.

NOTE: It is not possible to use wireless and wired network connections simultaneously.

- Press to view ink information.

- Press to change printer settings.
- Press to load, unload, and change options for roll paper.
- Press to change options for the multi-sheet tray, or to activate it.
- Press to load, unload, and change options for single sheets.
- Press to access HP Designjet ePrint & Share.

NOTE: The active paper source is indicated by a slightly larger icon, with a white tick in a green circle: .

If the printer is left idle for some time, it goes into sleep mode and switches off the front-panel display. To change the time that elapses before sleep mode, press , then **Printer preferences** > **Sleep**. You can set a time between 5 and 240 minutes.

The printer wakes from sleep mode and switches on the front-panel display whenever there is some external interaction with it.

The following table shows an overview of the two types of support menu available, for more details see Entering the support menus on page 102.

NOTE: The icons mentioned in this table will not be visible in the front panel: you must press the front panel in the places where they normally appear, as shown in the front panel illustration at the start of this section.

Label	Description
Support menu: This can be used by customers under the guidance of phone call agents assisting remotely. Using this menu, customers can perform troubleshooting tasks and access printer information.	From the Home screen, press the following icons one after the other: , , , . If there is a system error, you may not be able to reach the home screen. In this case, press the Power button and hold it down for 15 seconds.
Extended Support menu: Service engineers only	From the Home screen, press the following icons one after the other: , , , .

Start-up sequence

There are three states between power-on and the Home screen:

1. Electronics initialization
2. Firmware initialization
3. Mechanical initialization

http://www.justmanuals.com

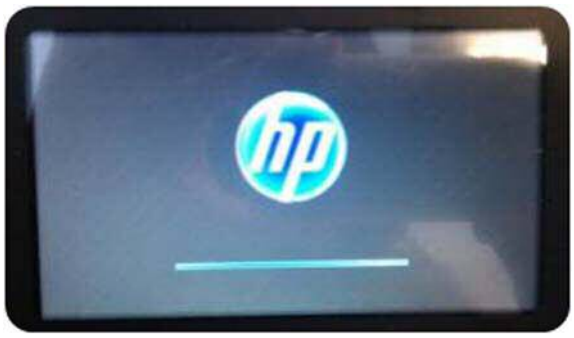
State 1: Electronics initialization

1. The front panel moves from flashing white light to turning dark.
2. The printer reads the firmware.

NOTE: At this stage, if something is broken, it will not be possible to enter the Support menu. To diagnose what is happening, go to the front panel blank troubleshooting. (and add here the link). Subsequently, you can enter the Support menu to troubleshoot if necessary.

State 2: Firmware initialization

1. The HP logo appears with a static bar.



2. Bundle board and ASICs are initialized.
3. The HP logo changes.

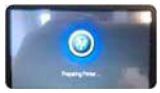


State 3: Mechanical initialization

1. A basic check of servos
2. A check that the Scan Axis and Paper Axis are unobstructed by scraps of paper or other items
3. Paper and print system initialization

Initialization flow summary

Time (sec)	Printer state	Visual and acoustic information
0	Power on	Using the Power button
10	Electronics initialization	

Time (sec)	Printer state	Visual and acoustic information
27	Mechanical initialization	
	1. Basic check of servos	Sound of the printer's motors
	2. Scan Axis, Paper Axis check	Carriage movement
	3. Paper and print system initialization	Paper movement
45	Ready state	

NOTE: Initialization lasts around 45 s if there was a clean power-off (using the front panel Power button). If there was a dirty power-off, the printer will require more time to inititialize (to ensure that the printhead is in a good state).

Subsystems

Covers

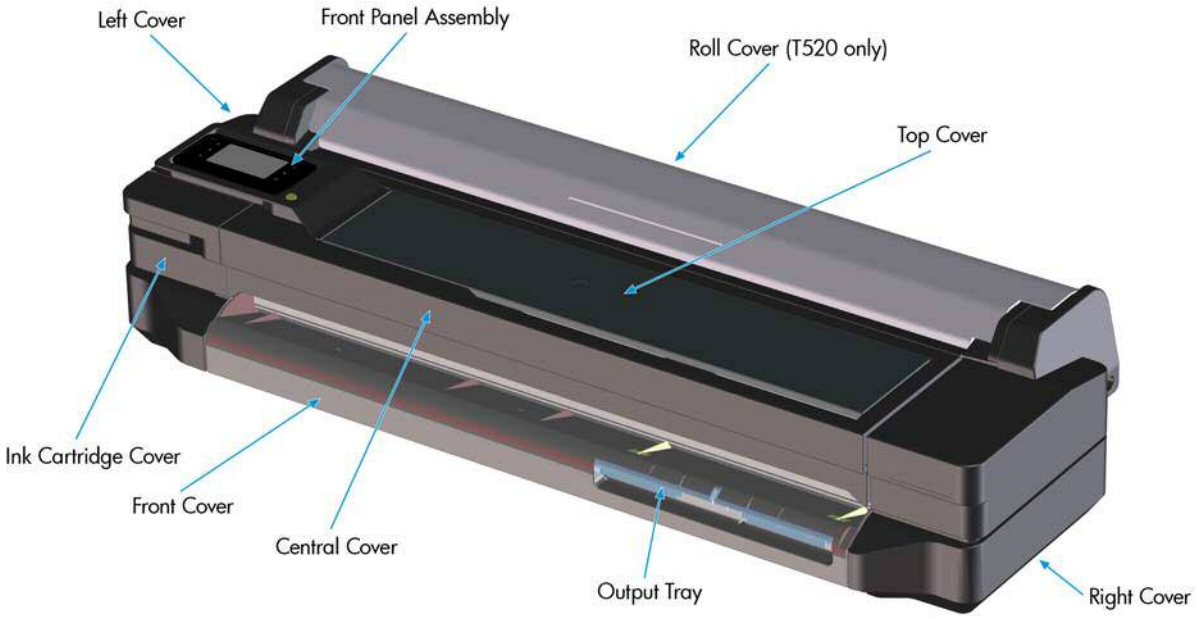
Functionality

These parts cover the printing mechanism and act as protection from potential knocks or dust. They also prevent the customer from coming into contact with unsafe parts during the operation of the printer. Finally, the covers complement the style and aesthetics of the printer.

The T120 and T520 printers have covers of different colors, and a different configuration of the roll cover, as seen in the following table:

	HP Designjet T120	HP Designjet T520
Roll Cover	Not Present	Transparent
Top Cover	Opaque Black	Transparent
Output Platen	Black-Blackberry	Black-Olive
Output Tray	Black-Olive	Black-Olive

http://www.justmanuals.com



Components

Other than the cosmetic aspects of the covers, there are several sensors related to the subsystem covers. The sensors are designed to detect the status of the cover, open or closed.

- The Ink Cartridge Cover Sensor senses whether the Ink Cartridge Cover is open or closed. Opening the Ink Cartridge Cover starts ink cartridge replacement automatically. The sensor is hosted in the printer chassis.
- The Central Cover hosts the Top Cover Sensor to sense whether the Top Cover is open or closed.

IMPORTANT: Be careful to avoid damaging the sensor while removing the Central Cover. See Central Cover on page 172.

- The Output Tray Sensor senses whether the Output Tray is open or closed. To avoid paper jams while printing on roll paper, the tray should be closed.

IMPORTANT: Damage to the covers can cause the sensors to malfunction.

Removal and installation

In order to proceed with the removal and installation of the covers its important to bear in mind their cosmetic aspects, some surfaces of the covers have a glossy finish, which requires maximum attention as they are very delicate and susceptible to scratches and finger marks. It is recommended that you use gloves for any service operation involving the covers.

Due to the layout of the covers, it is important to bear in mind that some parts require removal before you can remove a specific cover.

- Right Cover requires Front Cover removal.
- Left Cover requires Front and Ink Cartridge Cover removal.
- Roll Cover requires Right and Left Cover removal.

- Top Cover requires Front Panel assembly removal.
- Central Cover requires Right Cover and Left Cover removal.

Related tests

Sensor tests for the Top Cover, Ink Cartridge Cover, and Output Tray operation. See Diagnostics menu on page 106.

Electronics

Other than the sensor boards, there are no electronics related to this subsystem.

Printhead health systems: Service Station, Primer system, and Left Spittoon

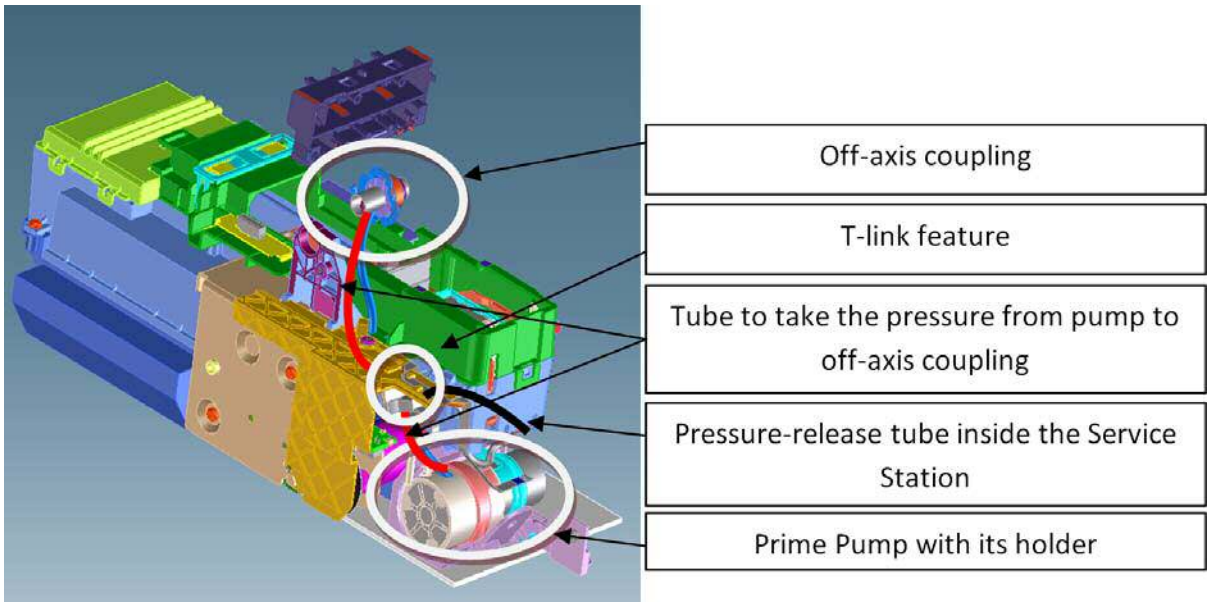
Functionality

The service station is responsible for printhead maintenance. It takes action to clean ink residues and service ink nozzles, and prevents ink from drying in critical zones by capping the printhead once printing has finished.

The Primer system provides the necessary air pressure to the printhead to perform initialization. This system also provides pressure to the necessary printhead service operations (by boosting air which pushes ink out through the printhead nozzles, cleaning residues of dried ink and other particles).

The Left spittoon is a small container located to the left of the print-zone area, this is the area used by the printhead to “spit” a small amount of ink at the end/beginning of the printing swath in order to ensure correct nozzle heath for left-to-right printing.

Components

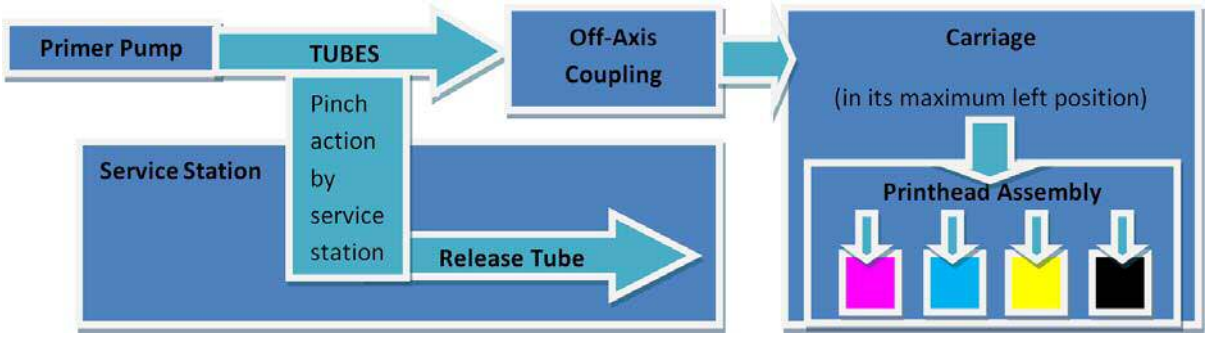

Off-axis coupling
T-link feature
Tube to take the pressure from pump to off-axis coupling
Pressure-release tube inside the Service Station
Prime Pump with its holder

http://www.justmanuals.com

Item	Function
Off-axis coupling assembly	This is a rubber spring link located on the side plate of the scan axis (area where the Carriage moves). It links the primer system with the Carriage when the Carriage is located in its maximum left position. This system ensures the pressure from the primer reaches the printhead for nozzle servicing.
Prime Pump	This is an air pump which provides the necessary pressure for printhead servicing and nozzle repair. The Prime Pump is suspended on a rubber holder to minimize the noise that the Prime Pump makes while in operation.
Primer Tubes	The tubes take the air from the Prime Pump to the off-axis coupling. There is a T link feature connected to a tube that goes inside the service station; the purpose of this tube is to release the air pressure from the system. The tube is pinched by the shuttle of the service station when reaching a certain position; this action closes the circuit and allows the system to be pressurized. With the movement of the service station the tube is released, allowing the pressure from the system to escape.

Notes and considerations

Any leakage in the primer system will generate poor or no priming, this will affect nozzle heath (or even cause the printhead startup to fail). Bear in mind that the system is not just for the Prime Pump and tubes, the prime pressure is transmitted via the off-axis coupling to the Carriage and from there to the printhead assembly and from there to the cartridges.



NOTE: There is no pressure sensor in the system. The Prime Pump operates at a certain time to reach a specific pressure level, the system is depressurized by releasing the pinching of the release tube in the Service Station (by moving the service station).

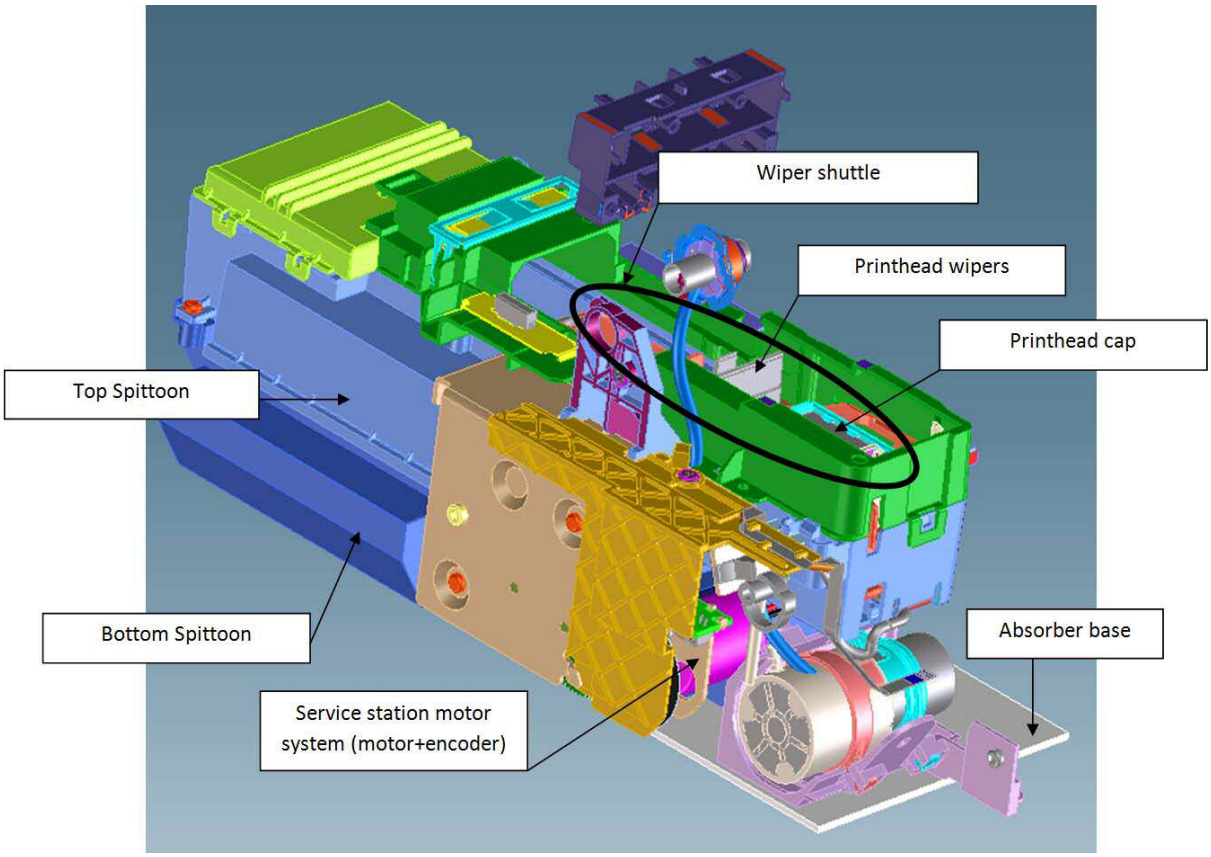
NOTE: It is important to ensure the Carriage reaches the maximum left position; if not, the off-axis coupling will not connect the Prime Pump with the Carriage. Also, the coupling is made of a rubbery material, degradation of the material will affect Primer performance due to air leaks.

Electronics

The control driver of the Prime Pump is located on the remote controller board located on the right-hand side of the printer. There is no encoder for the Prime Pump. This pump is managed only by a DC motor activated for a certain period of time to create the required priming pressure.

Service Station system

Functionality



Item	Function
Printhead Wipers	These are rubber paddles that are passed through the nozzle plate of the printhead with the Service Station movement. They clean the excess ink from the nozzle plate with a rubbing action.
Printhead Cap	This caps and protects the nozzles from drying when they are not printing.
Service Station Motor system	This moves the shuttle with the wiper and the cap so that these two items can perform their functions. The system is composed of a DC motor and an encoder disk with an encoder sensor to read the motor position.
Bottom Spittoon	This part acts as an ink reservoir when spitting and nozzle health operations are performed. It contains diapers that prevent the ink becoming liquid.
Top Spittoon	This seals the reservoir and completes the main body of the service station.

http://www.justmanuals.com

Item	Function
Absorber Base	This is made of foam and is located under the service station on top of the printer structure. It works as an additional diaper in case ink spills out of the Service Station.
Wiper Shuttle	This mobile part is propelled by the motor that contains the Wiper and Cap. Depending on the position, spitting, wiping, capping, or priming can take place: **Spitting:** The printhead "spits" a little ink into the spittoon to get the nozzles conditioned and ready for the next swath of printing. **Wiping:** A physical action to pass the rubber wipers through the printhead nozzles. **Capping:** Parking the printhead to maintain nozzle heath during printer inactivity, with a surrounding seal. **Priming:** Squirts ink through the nozzles to clean and unblock them.

Notes and considerations

The service station is offered as a complete service part for full replacement. The failures from this subsystem are usually related to the mobile parts: motor or encoder failures that prevent the shuttle from reaching the positions for capping or uncapping.

With the life primer system, tube pinching can present an issue (although it is designed to function for the life of the printer).

When the Service Station is replaced, it is mandatory to reset the Preventive Maintenance Kit for the Service Station, this will trigger a simple calibration that is done with the Service Station on the next printer startup. The calibration measures the length of the Service Station (shuttle front bump to shuttle rear bump), which ensures a correct capping position.

Electronics

All the controlled movements for the Service Station are done from the remote-controlled board located on the right-hand side of the printer. Issues with the Service Station can also be related to this control board.

Paper path and Cutter

Functionality

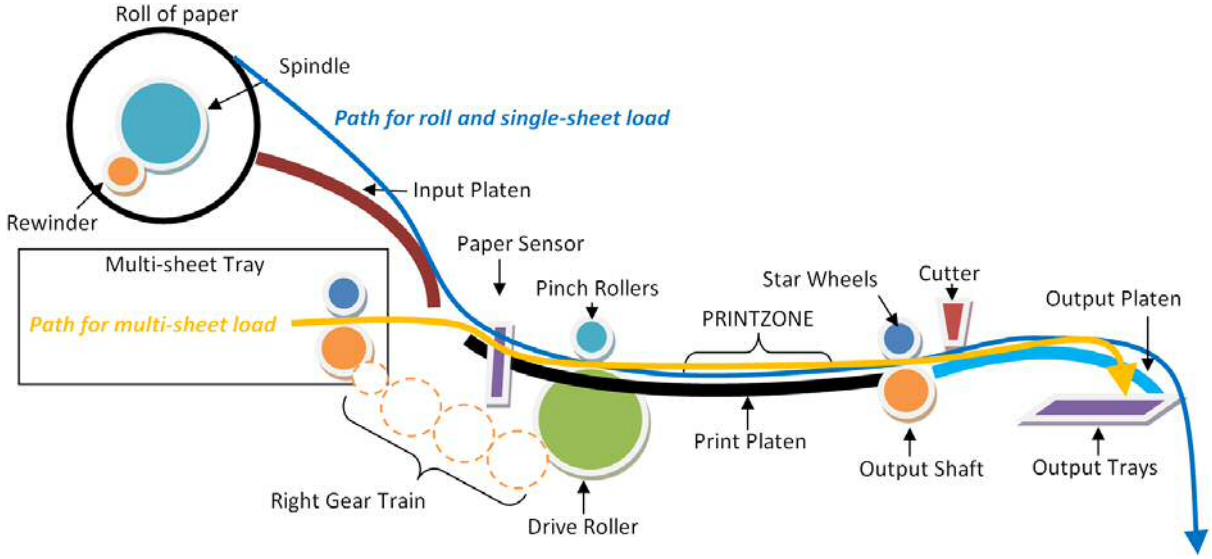
The paper path

This comprises all the elements of the printer in contact with the paper, designed to hold, move, and manage it in a controlled manner in order to print.

Paper can be loaded using a roll, which is mounted on the rear spindle, or single sheets loaded from the Multi-Sheet Tray, or single sheets loaded singly.

The paper passes from its source (Roll, Single Tray, or Multi-Sheet Tray) until it touches the Out-Of-Paper Sensor, when the printer detects the presence of the paper and proceeds to load it.

To perform the paper feed, the printer catches the paper in between the Drive Roller and the Pinch Rollers (Pinch Rollers are spring-loaded pushing the paper down on top of the Drive Roller), then the paper is pushed forwards on top of the Print Platen in the print zone, which is where the printing operation is performed. The paper advance is provided by a motor that moves the Drive Roller. The exact position of the Drive Roller and hence the paper is controlled by an Encoder Disk located on the roller axis.



The printed paper then passes between the Output Shaft and the Starwheels (which keep the paper tension as flat as possible for printing) to exit on the Output Platen, where it is held in case of cut sheet or is cut to fall on the output basket in the case of roll paper.

The Output Shaft is designed to over-advance the Drive Roller movement slightly, and hence create the necessary paper tension to keep the paper as flat as possible. The Starwheels are spring-loaded and are designed to create force on top of the paper, this is done so as to leave the paper unmarked and at the same time allow the Output Shaft force to be appropriately transmitted.

In the Roll configuration, the rewinder module generates back force while printing to facilitate paper control.

A key electrical element of the paper path is the Paper Sensor (also known as the Out-Of-Paper Sensor or OOPS). This sensor is located at the beginning of the Print Platen; it detects paper insertion for roll load and single-sheet load.

Electronics

In the paper-path driving system, the only electrically active element is the Drive Roller. The Drive Roller is impelled by the drive roller motor and it contains an Encoder Disk on the axis to determine its position. The Encoder Disk is read by two sensors. One, the “encoder sensor”, designed to read the encoder, counts the Encoder Disk (the Encoder Disk outer marks) and another one, the “encoder index sensor”, determines the start position (the 0 position) of the Drive Roller by reading the inner thicker lines of the Encoder Disk.

NOTE: Every time the printer starts up, it searches for the 0 position of the Drive Roller. If this search fails (which means that the index sensor is faulty), the printer will give a system error and will be unable to initialize.

http://www.justmanuals.com

The roll paper input system

Functionality

This system keeps the roll in place and ensures controlled rotation.

It contains the rewinder, which rewinds the paper for paper ejection, and provides an opposite tension to the paper advance for better paper control.

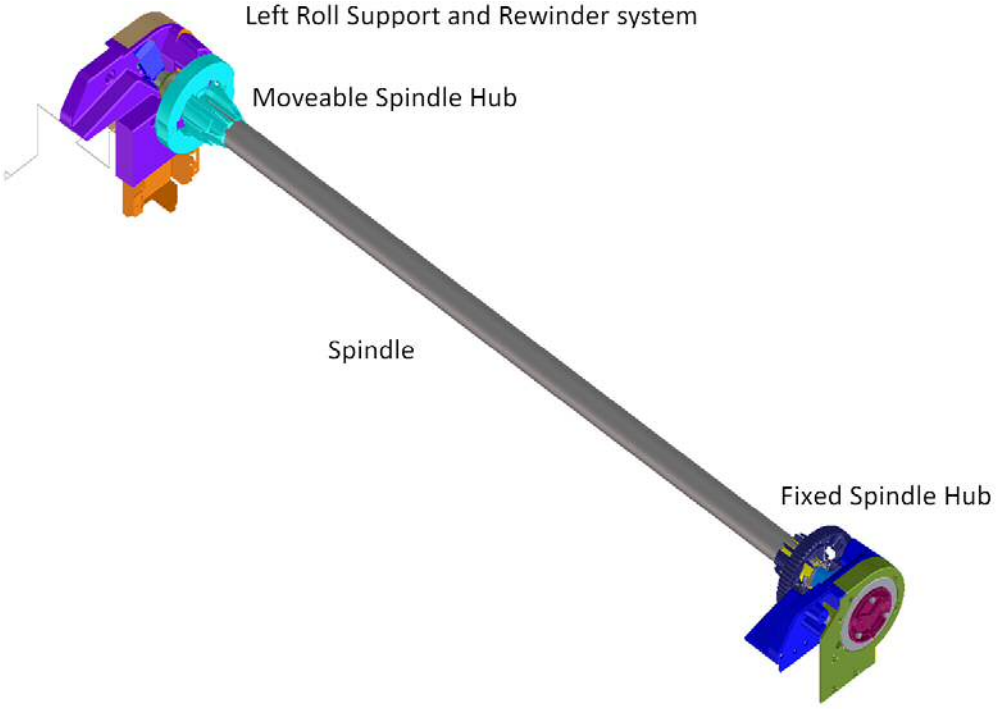
- The Left Support encloses the Rewinder Motor and Encoder, containing a set of gears that transmit the Rewinder motion to the spindle. There is a V-shaped spring to load and fix the spindle in position.
- The Right Support holds the spindle in position to rotate over passive rollers.

  In the T520, the right support also contains the dampers for the roll cover opening movement control (the internal dampers perform a braking action preventing sudden movement during the opening operation).

NOTE: The right support for the T120 models does not contain dampers. The T120 and T520 have two different assemblies from the factory, nevertheless both can be replaced by the damper option of T520 (identical from the external point of view), and there is only one service part available.

- The spindle is designed to hold the paper rolls, and receive the motion from the rewinder gear in the Left Support. It consists of a central bar and two hubs; the right hub is fixed to determine the right-side loading position of the paper, and the moveable left hub adjusts to the width of the paper.
- The Roll Cover (T520 only) shields the roll from dust.

NOTE: The Roll Cover is a passive part, with no sensor: the printer does not know its status.



Right Roll Support with roll-cover dumper system in T520

Electronics

The Rewinder Motor and Encoder system are directly controlled by the Main PCA.

The paper output system

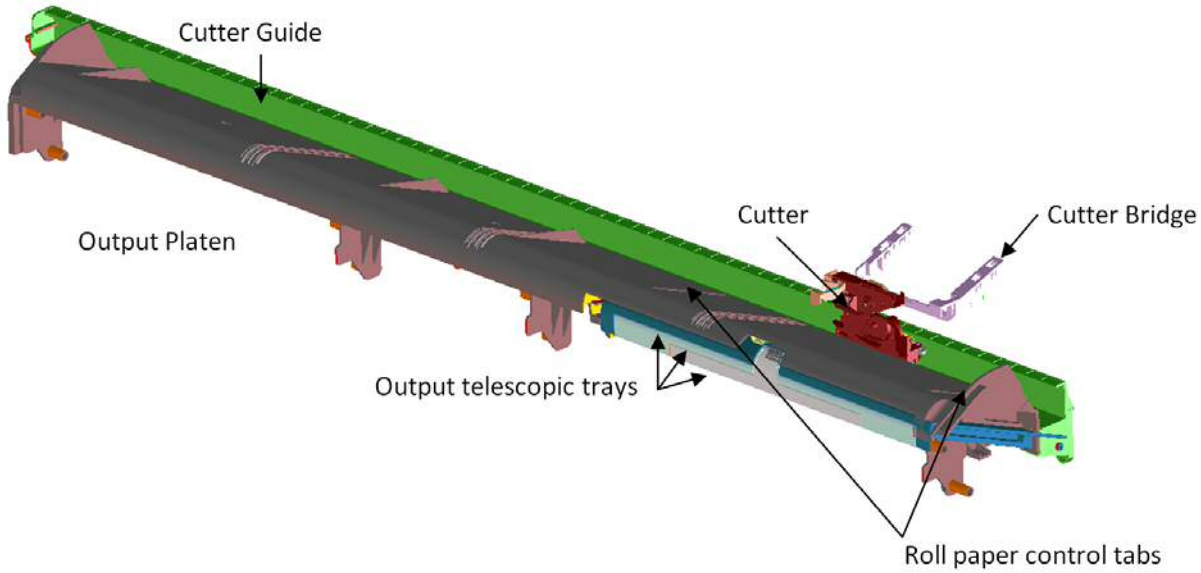
Functionality

The system ensures that the printed paper follows a controlled path and acquires a certain shape in order to be delivered properly to the user. It also has a cosmetic function.

The system includes a set of three telescopic trays, which are extended to collect the cut-sheet paper printed from the Multi-Sheet Tray.

There are two roll-paper control tabs that are deployed automatically when the telescopic trays of the Output Tray are in the closed position. This is a purely mechanical action as the tabs are pushed up by the output trays when closed. The purpose of those tabs is to control the shape of the roll paper when coming out of the paper path.

The Front Cover is located underneath the Output Platen.



Electronics

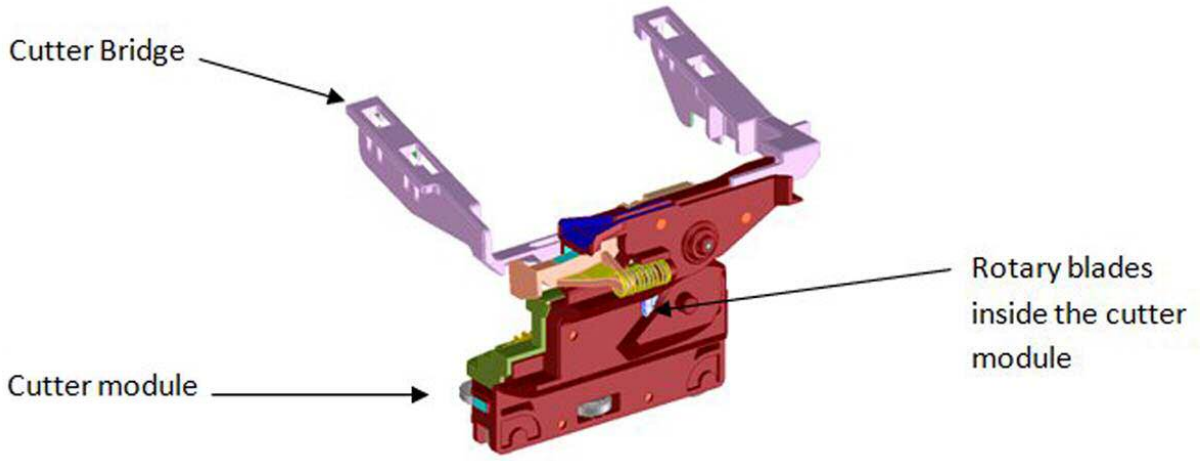
The only electronic component related to the Output Platen is the Output Tray Sensor located underneath the output trays. The sensor is activated when the three output trays are fully closed. The sensor cable is routed via the front of the machine and is directly connected to the main PCA.

The Cutter system

The Cutter cuts the paper after the print has completed.

It comprises 1) a cutter module that cuts the paper with two rotary blades, 2) a Cutter Bridge attached to the Carriage that catches and releases the Cutter to perform the cutting operation and then to leave it in capping position, 3) a Cutter Guide that holds the movement of the Cutter along the printer width.

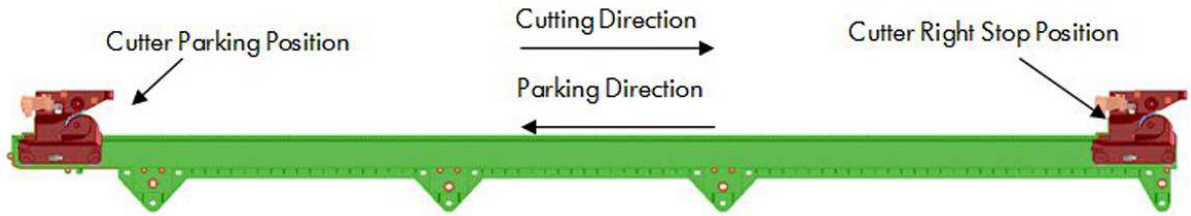
http://www.justmanuals.com



In order to operate the Cutter, it needs to be in the parked position. If not, the Cutter will not be engaged by the Cutter Bridge and the printer will not perform the cutting action.

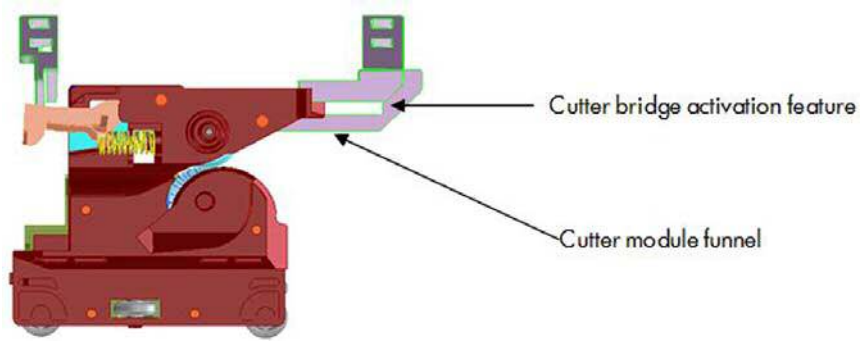
Whenever the printer initializes, it performs a parking movement with the Carriage to ensure that the Cutter is left in the appropriate position.

The printer does not have any feedback about the cutter engagement action. Hence, if for any reason the engagement is not performed correctly, the printer will continue operating as if the engagement has occurred.

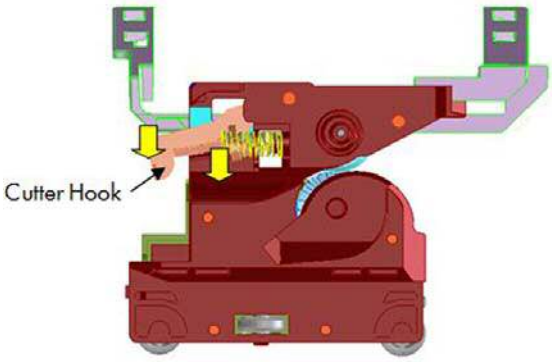


How activation works

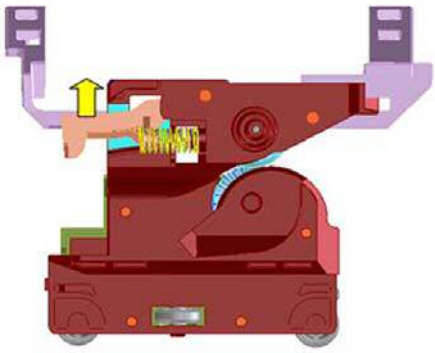
1. Pre-activation phase: The Cutter Engagement Feature of the Bridge gets into the funnel of the Cutter Module grooving the Cutter to ensure the correct position for activation.



2. Hook catching: The cutter bridge continues moving to the left pushing down the cutter hook (in orange), after the left side of the cutter bridge passes the Carriage stops and the cutter hook returns to its position due to its spring motion.

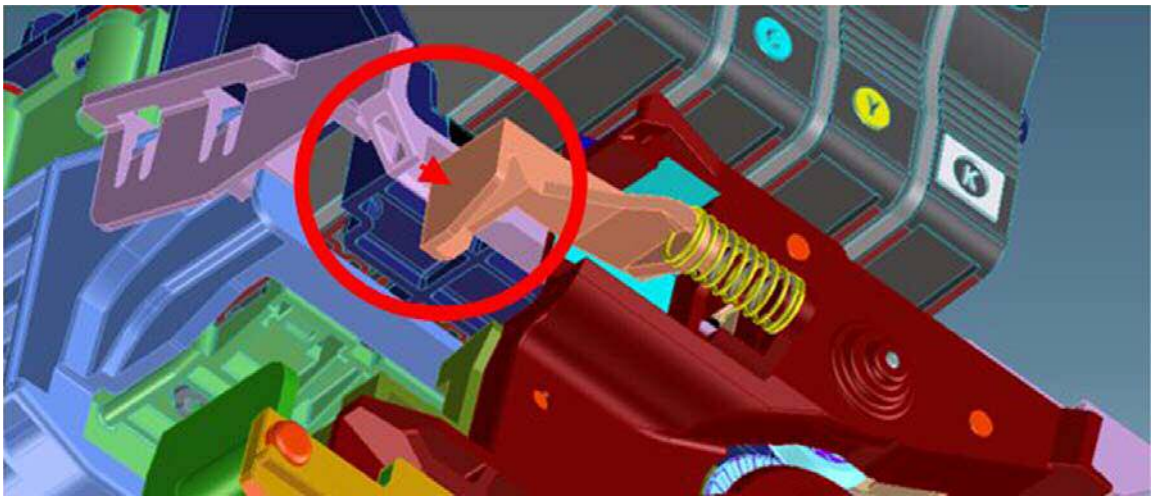


Left feature of the cutter bridge pushes down the cutter hook



After the cutter bridge left feature passes the cutter hook returns to its position

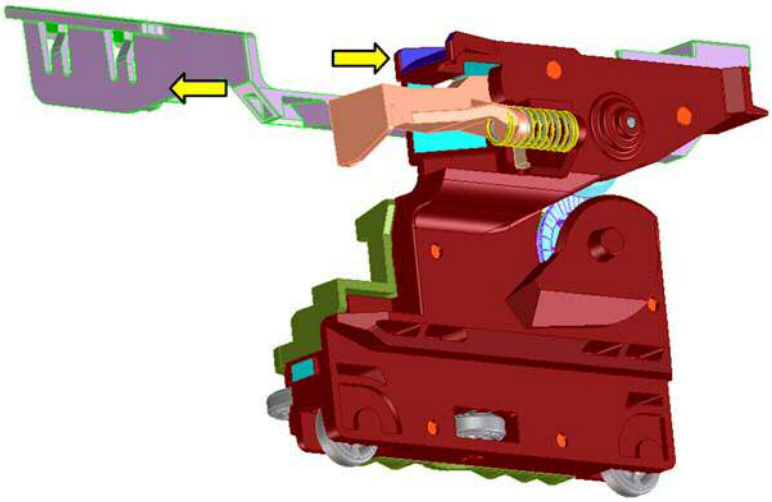
3. Cutter action: The left feature of the cutter bridge pushes the cutter to the left, performing the cutting operation.



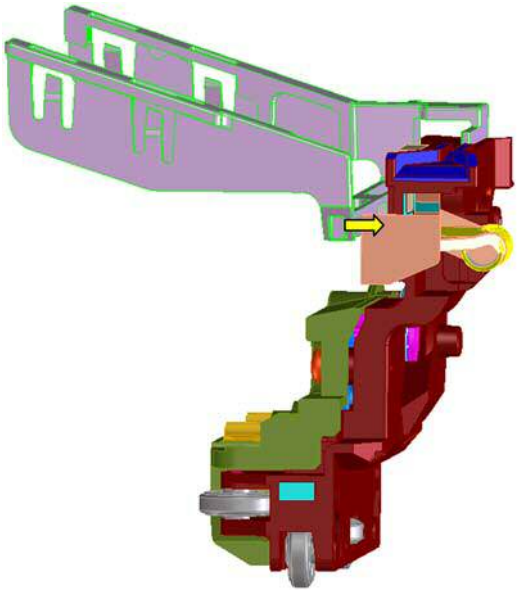
http://www.justmanuals.com

How deactivation works

1. Disengagement: Hook Bridge changes direction moving now from right to the left, so that Cutter Hook slides out of the Cutter Catch Feature.



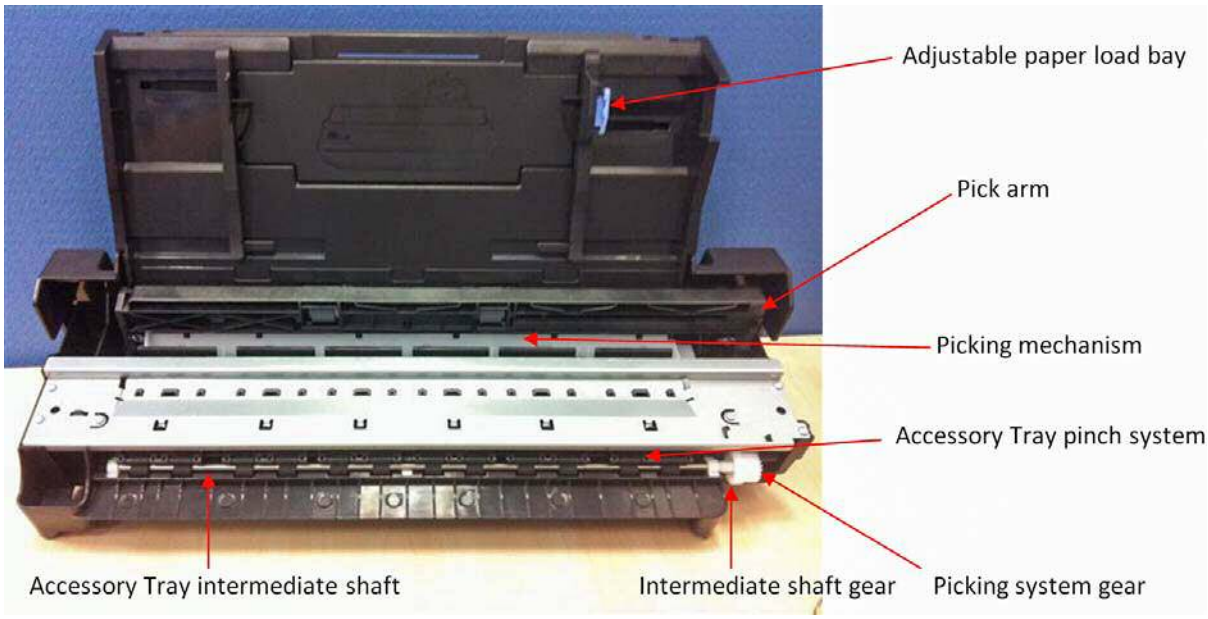
2. Move-away action: the Cutter Hook deactivates from the bridge by passing in front of it.



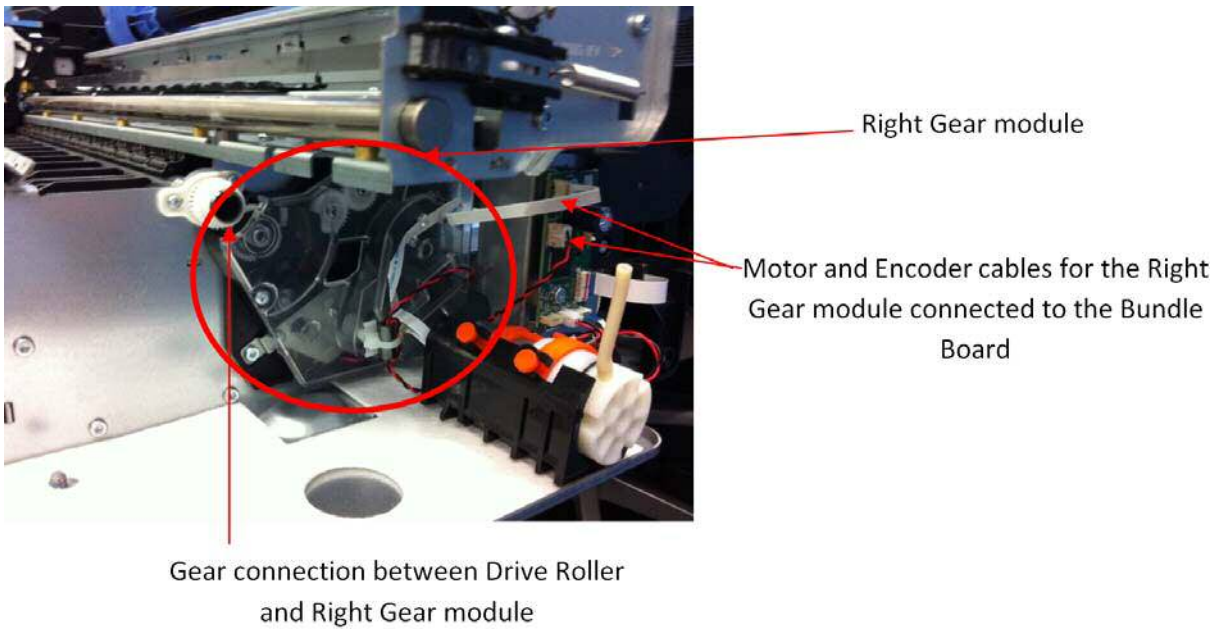
Accessory tray and right gear module

Functionality

The accessory tray holds and loads the cut-sheet paper for the printer. The accessory tray itself is a completely mechanical system with no electronics or motors. All the motion drives for both picking and paper drive are or created or transmitted by the Right Gear module located on the right-hand side of the printer, behind the Service Station.



The Right Gear module has two main functions. It contains the motor encoder and gear drive system for the picking mechanism, and it contains the gear train system to transmit the movement from the drive roller to the accessory tray.

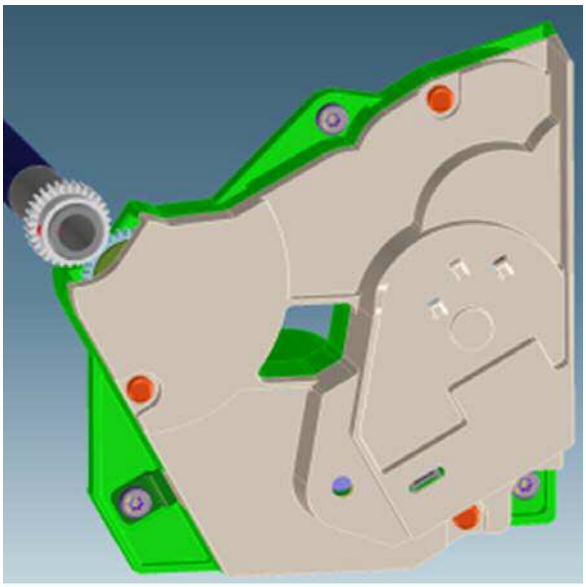

Right Gear module
Motor and Encoder cables for the Right Gear module connected to the Bundle Board
Gear connection between Drive Roller and Right Gear module

http://www.justmanuals.com

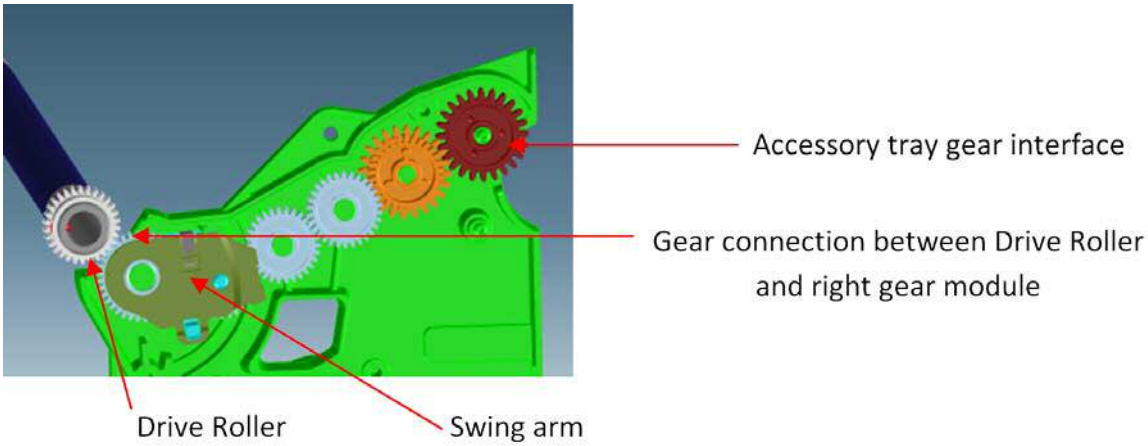
Right Gear module functionality

The Right Gear module has two different functions associated with the Multi-Sheet Tray.

1. The paper drive from the Multi-Sheet Tray into the platen area (until the cut sheet reaches the drive roller area).

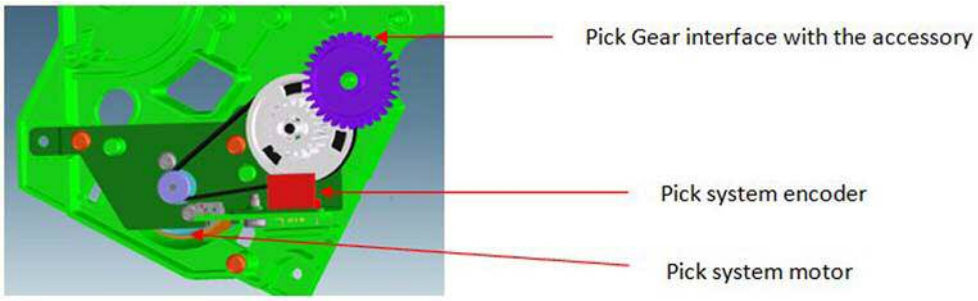


Right Gear module



The intermediate shaft in the Multi-Sheet Tray is driven by the drive roller through a gear train inside the Right Gear module. The intermediate shaft meshes with the Multi-Sheet Tray gear interface (red gear in the picture) at the end of the train. A swing arm engages the gear train when the Drive Roller is driven backwards (as shown in the picture), driving the intermediate shaft forwards. When the Drive Roller is driven forwards, the swing arm disengages from the gear train and the intermediate shaft is not driven. This action is to prevent reverse paper movement to be transmitted to the Multi-Sheet Tray.

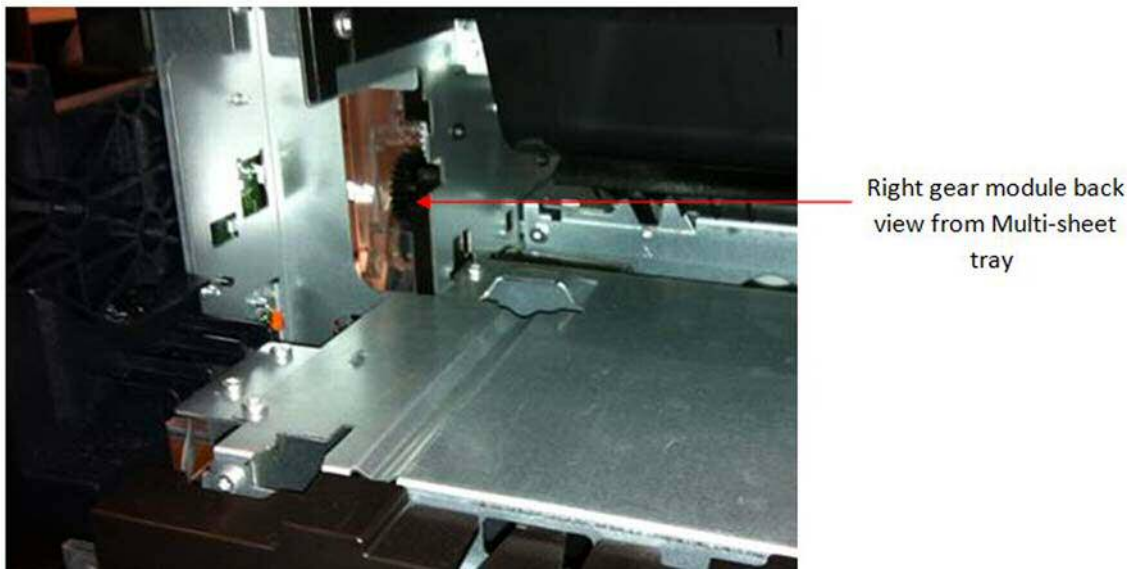
2. Picking functionality drive system



The Multi-Sheet Tray pick drive assembly is mounted in the right side gear module. The assembly contains a DC motor and pinion, belt, cluster pulley, and gear. An encoder (not shown, but it is located in front of the white gear shown in the picture) is read by the encoder sensor (in red in the picture) to servo-control the pick drive.

Right Gear and Multi-Sheet Tray interface

The two gears from the Right Gear module interface with the Multi-Sheet Tray by location once the Multi-Sheet Tray is locked in position; both gears can be considered fully engaged.



Multi-Sheet Tray functionality

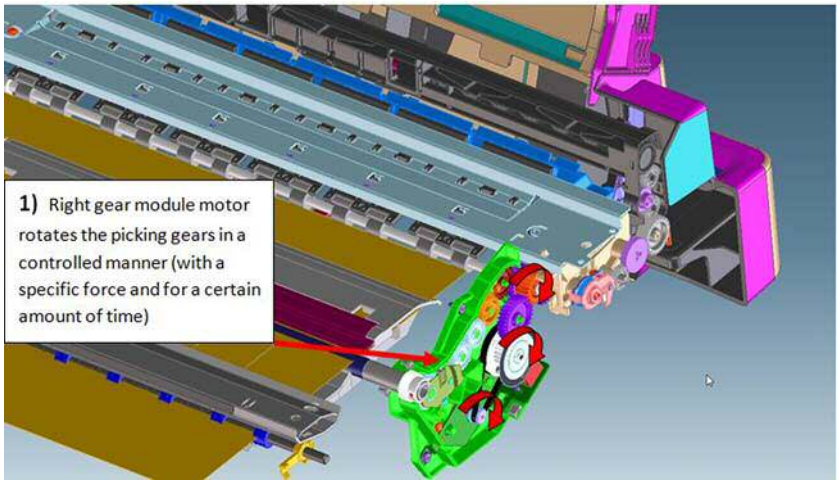
The function of the Multi-Sheet Tray is to pick and feed the cut-sheet paper until the paper is grabbed by the drive roller (drive roller and pinch system).

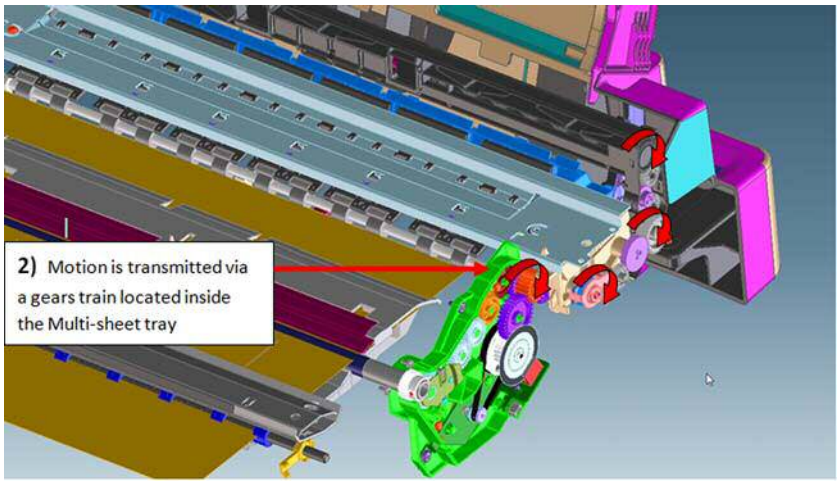
The actions performed for those operations are (1) sheet pick and (2) sheet input.

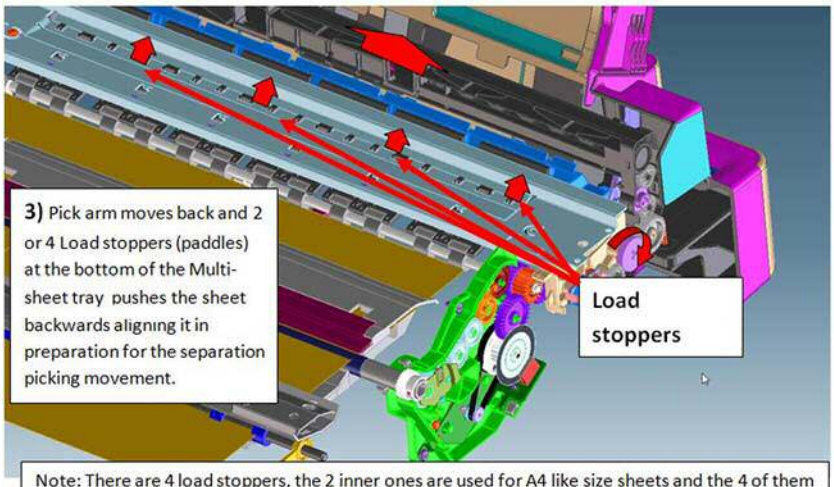
1. Sheet pick

This movement is transmitted through a lateral gear chain in the Multi-Sheet Tray towards the swing arm, which is pushed towards the paper, and the picking mechanism located at the bottom of the Multi-Sheet Tray, which separates the top sheet from the stack of pages.

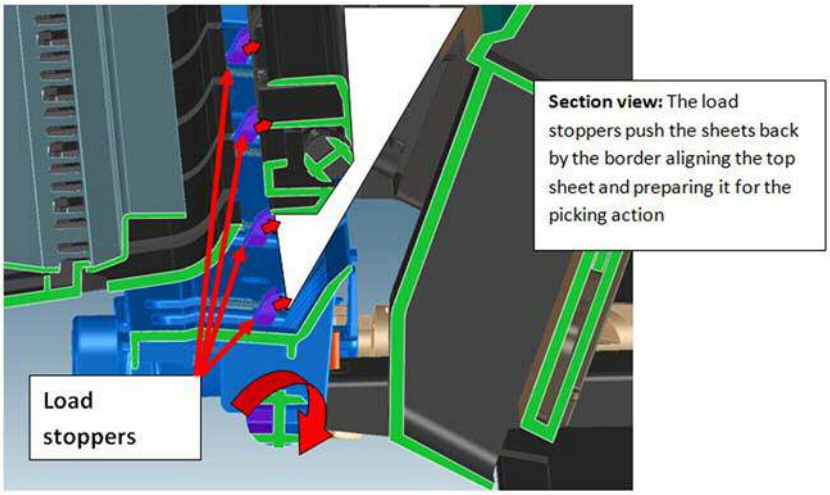
http://www.justmanuals.com

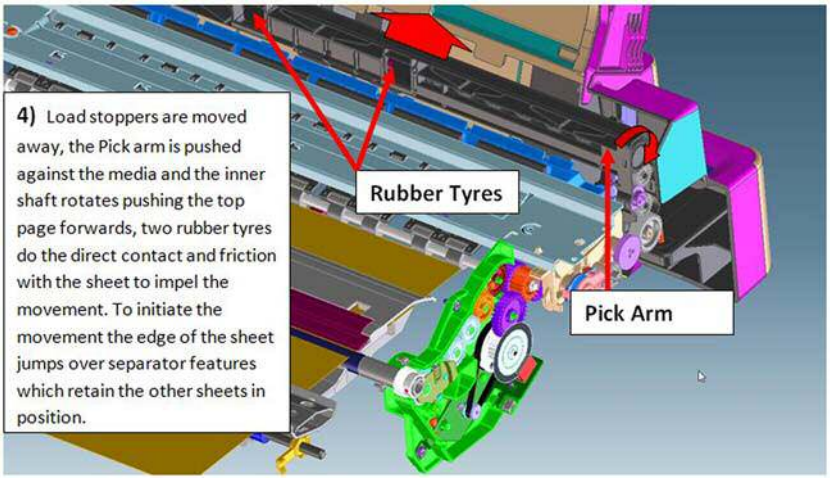

1) Right gear module motor rotates the picking gears in a controlled manner (with a specific force and for a certain amount of time)

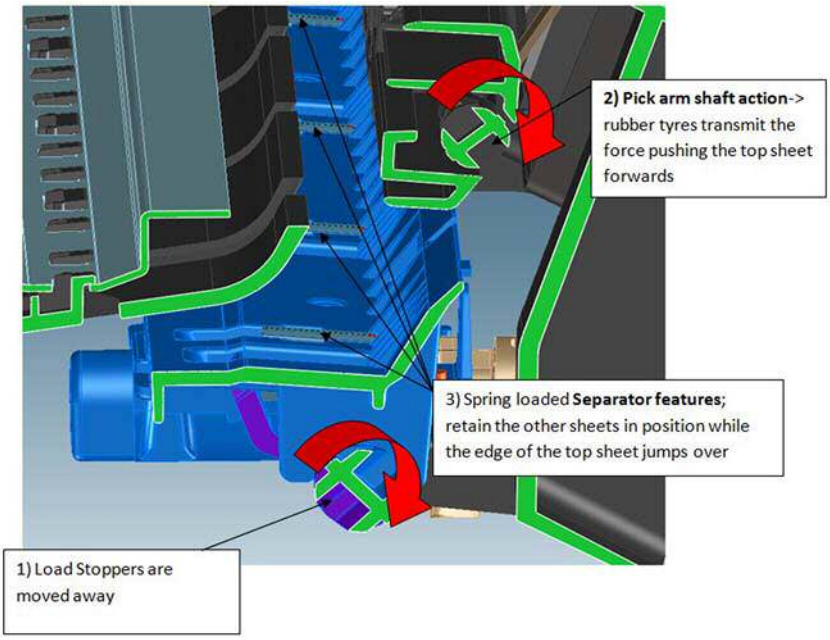



3) Pick arm moves back and 2 or 4 Load stoppers (paddles) at the bottom of the Multi-sheet tray pushes the sheet backwards aligning it in preparation for the separation picking movement.
Load stoppers

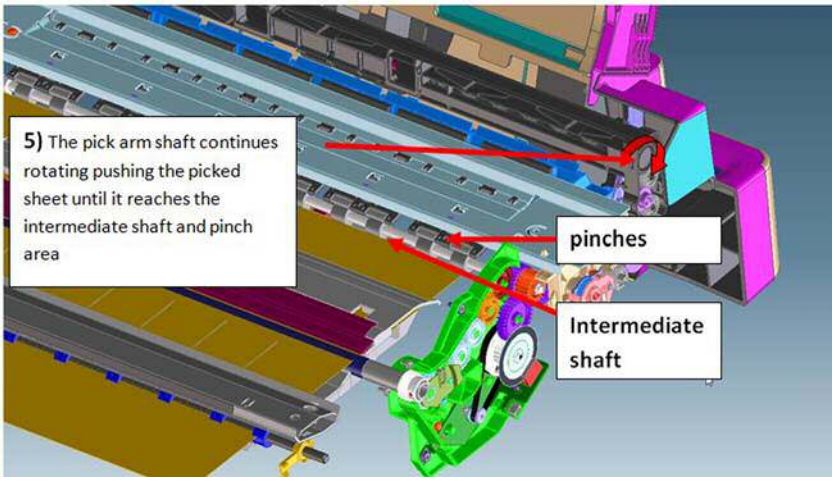
Note: There are 4 load stoppers, the 2 inner ones are used for A4 like size sheets and the 4 of them for A3 size like sheets.


Section view: The load stoppers push the sheets back by the border aligning the top sheet and preparing it for the picking action
Load stoppers


4) Load stoppers are moved away, the Pick arm is pushed against the media and the inner shaft rotates pushing the top page forwards, two rubber tyres do the direct contact and friction with the sheet to impel the movement. To initiate the movement the edge of the sheet jumps over separator features which retain the other sheets in position.
Rubber Tyres
Pick Arm


2) Pick arm shaft action-> rubber tyres transmit the force pushing the top sheet forwards
3) Spring loaded **Separator features**; retain the other sheets in position while the edge of the top sheet jumps over
1) Load Stoppers are moved away

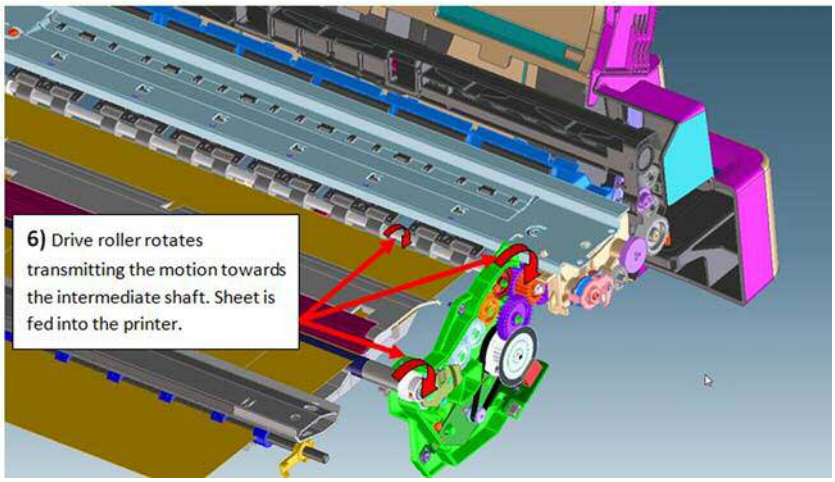
http://www.justmanuals.com


5) The pick arm shaft continues rotating pushing the picked sheet until it reaches the intermediate shaft and pinch area
pinches
Intermediate shaft

2. Sheet input

Once the paper is in the intermediate shaft area, the drive roller is rotated, impelling the intermediate shaft through the right gear module, pushing the sheet towards the inside of the printer, so that it will be grabbed by the drive roller and main printer pinch system, proceeding with the standard paper drive motion (as with roll paper).

NOTE: The printer considers the load successful if, after the picking and sheet input procedures, the sheet is detected by the printer's Paper Sensor. Hence, a correct function of the Paper Sensor is required also for the accessory tray loading action.



NOTE: It is possible to reproduce the picking and loading motions by extracting the Multi-Sheet Tray and rotating the gears with the hand, to validate module performance and troubleshoot any possible mechanical issues.

NOTE: Different elements of the Multi-Sheet Tray are not serviceable, the whole module requires replacement in case of failure.

Electronics

Both the encoder and motor-drive system are managed by the Bundle PCA located on the right-hand side of the printer.

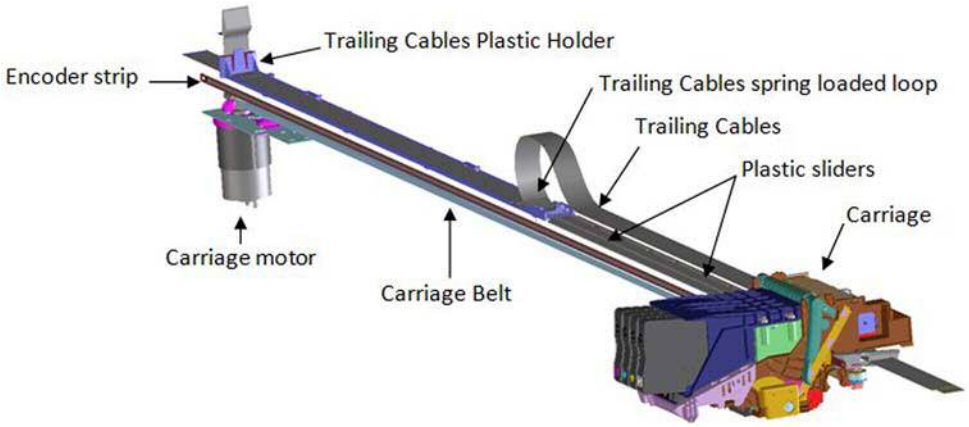
Scan Axis system: Carriage and Carriage impelling

This system moves the Carriage from left to right and right to left of the printer on top of the paper in a controlled manner to perform printing, cutting, paper detection, and any other Carriage movements for servicing and final capping process.

The system comprises the Carriage sliding on the scan axis rod, on which rotates and whose position is determined by a cam mounted on the Carriage, which slides touching the bottom surface of the anti-rotation rail.

There are two trailing cables mounted one on top of the other, which connect the Carriage with the main electronics control board. A scan-axis encoder strip is needed for the Carriage to determine its position, and a Carriage Motor which impels the Carriage via a belt.

The trailing cable is held in position by a plastic holder, which clips onto the scan axis structure. A spring-loaded loop ensures follow-up action of the cables with the Carriage movement. Two plastic cable sliders are also placed to ensure minimum contact of the trailing cables with the scan axis structure. The plastic sliders are greased to prevent ink spray (aerosol) deposits from accumulating on them, generating a sticky surface which could retain the cables and then be damaged by Carriage movement.



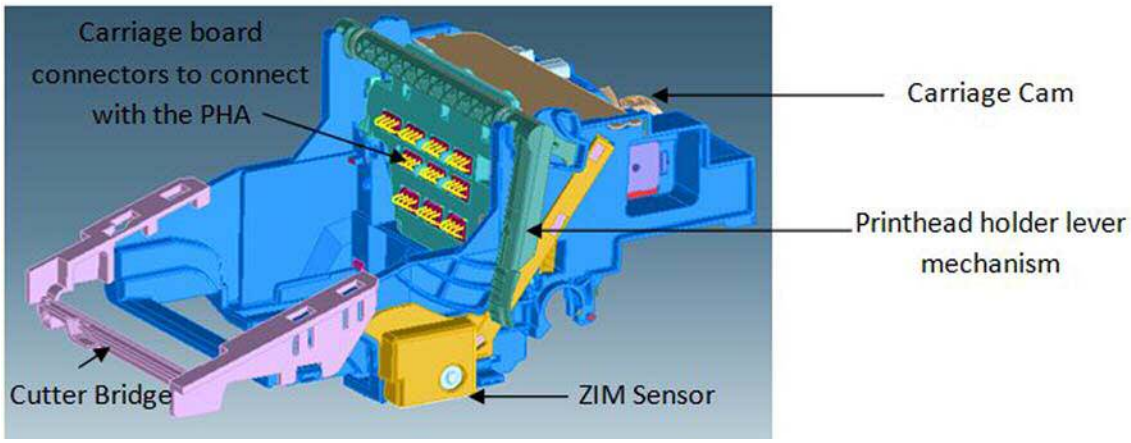


Greased cable sliders (2 in the 24" machine and 3 in the 36")

The Encoder Strip Sensor is located inside the Carriage, once the Carriage is assembled the Encoder Strip crosses the Carriage, passing by the detection area of the sensor inside the Carriage.

The main function of the Carriage is to hold the printhead in position, to enable cartridge insertion, and to move the printhead in a controlled manner in order to print.

http://www.justmanuals.com



The Carriage holds all the necessary interface electronics for the main board to interact with the printhead via the trailing cables. A set of spring-loaded connectors are the main interface Carriage-printhead.

NOTE: It is very important that the contacts are clean, free of dust/ink to ensure a correct connection between printhead and Carriage, as high-speed data are transmitted through this connection, and dust could cause sporadic system errors. This is particularly important when replacing the printhead, as the removal of the old printhead (extraction with a rotary movement) can cause the nozzle plate to touch those contacts and create contamination that could cause problems with the new printhead. However, manual cleaning of the contacts is not recommended.

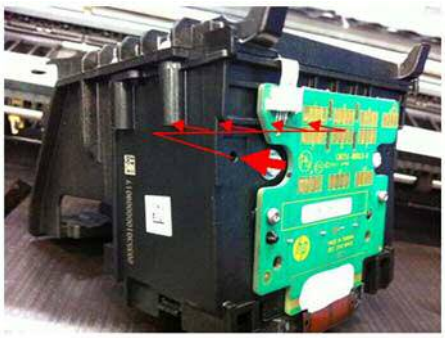
The Carriage also has additional functionality:

1. Transmits the pressure from the Prime Pump via off-axis coupling to each of the four cartridges
   - Off-axis coupling connects with the Carriage via the side connection bay:



   - An internal passage of the Carriage transmits the air pressure towards the printhead.

- The rear hole of the printhead receives the air pressure which is distributed towards the four air ports inside the printhead.





- Each of the air ports transmits the air pressure to the cartridges, and the air pushes the inner chambers, expelling the ink during the priming operation.



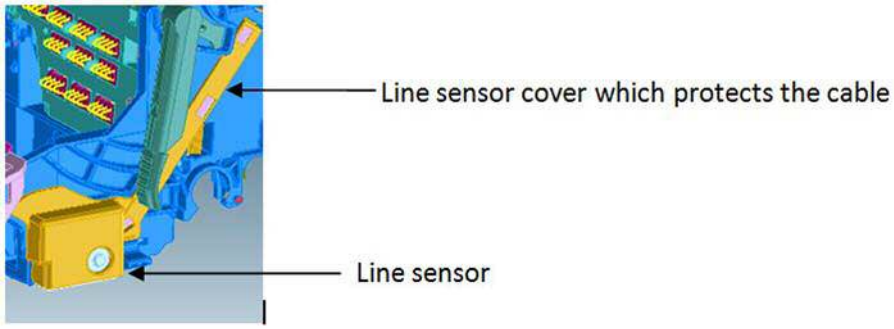
2. Holds the cutter bridge

   The cutter bridge impels the Cutter for cutter operations (see additional information in the cutter section).

http://www.justmanuals.com

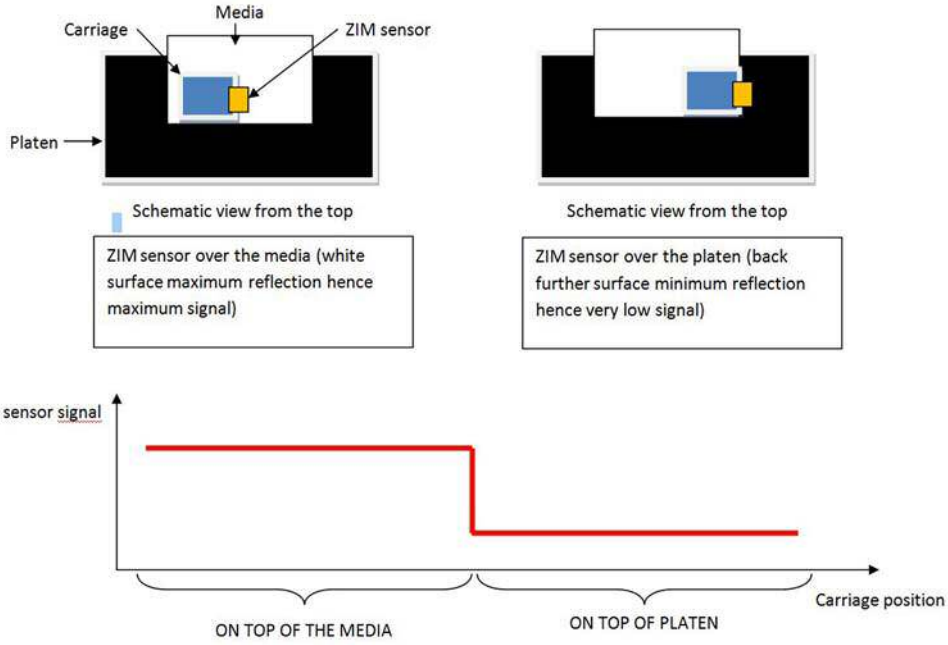
3. Holds the Carriage Line Sensor

The Carriage Line Sensor (also known as the ZIM Sensor) is located on the right of the printer and is used to detect the edges of the paper to determine the paper dimensions and start position. This sensor is also the tool used to detect the position of printed lines to perform calibrations (Paper Advance calibration and printhead alignment).

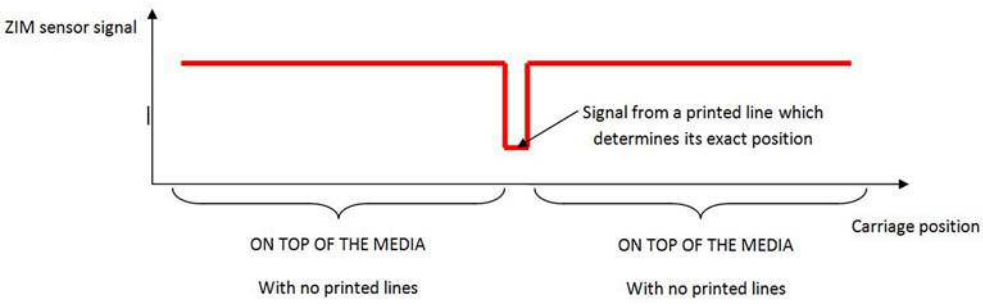


The Line Sensor is a reflective tool that generates a beam of LED light, whose reflection is detected by a luminance sensor. The signal from this sensor is used to determine the position of lines or paper edge according to the position of the Carriage.

NOTE: Both LED emitter and receiver sensor inside the line sensor are protected by a transparent plastic cover. If this cover becomes dirty, the signal to detect edges or lines will be affected, which could cause intermittent issues during the paper load.


Media
Carriage
ZIM sensor
Platen
Schematic view from the top
ZIM sensor over the media (white surface maximum reflection hence maximum signal)
Schematic view from the top
ZIM sensor over the platen (back further surface minimum reflection hence very low signal)
ZIM sensor signal
Carriage position
ON TOP OF THE MEDIA
ON TOP OF PLATEN

It can also detect printed lines from short signals when the sensor crosses the lines:

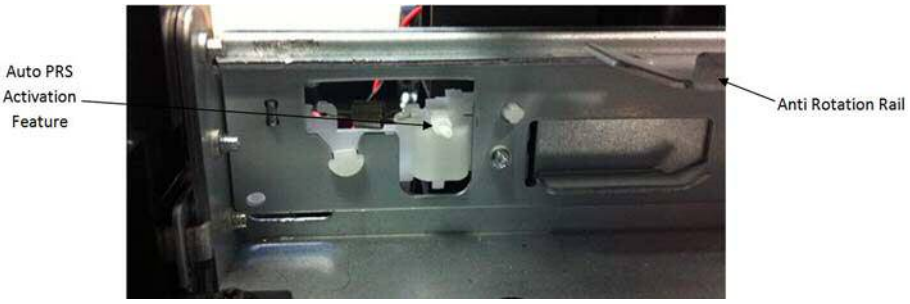

ZIM sensor signal
Signal from a printed line which determines its exact position
Carriage position
ON TOP OF THE MEDIA
With no printed lines
ON TOP OF THE MEDIA
With no printed lines

Carriage CAM and Auto PPS adjustment

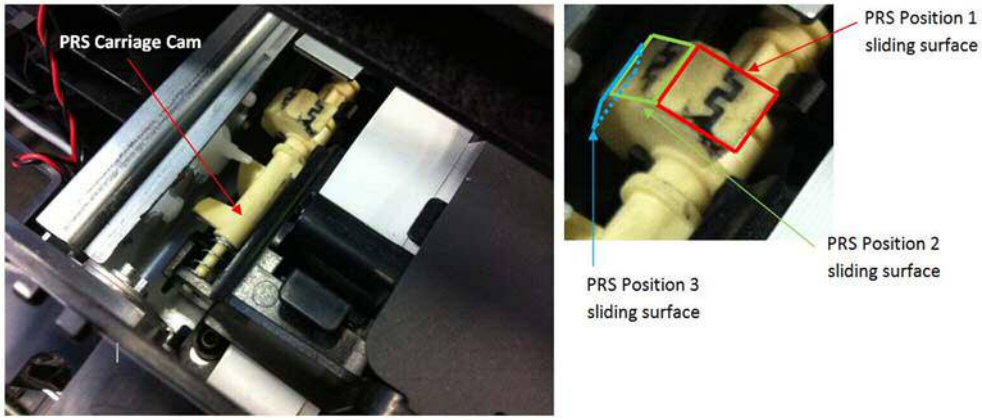
At the back of the Carriage there is a sliding cam that determines the PRS (Print to platen Rib Space) of the Carriage. In manufacturing, the anti-rotation rail (area in which the PRS cam slides) is adjusted to calibrate the nozzle plate position of the printhead, at around 1.6 mm all along the scan axis width. This calibration is not service-adjustable and should remain constant throughout the printer's life.

As there are different paper thicknesses, the printer is able to rotate this sliding cam automatically to three different positions, changing the PRS distance to accommodate it to the appropriate printing distance.

This rotation is performed by taking the Carriage to a feature on the left-hand side of the scan axis, different side movements of the Carriage at different speeds allow this feature to grab and rotate the cam accordingly. The Cam has three different areas for three different PRS adjustments.

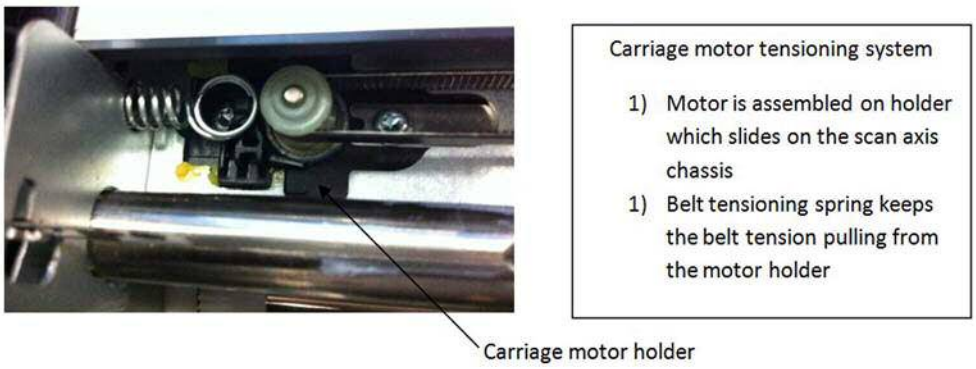


Auto-PRS feature located on the left-hand side of the scan axis.

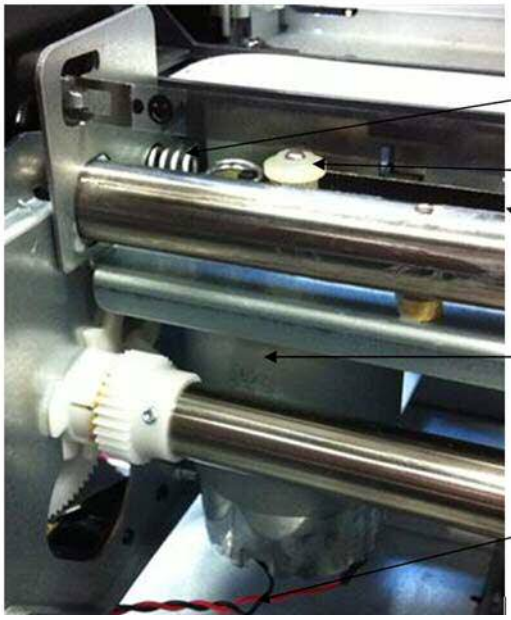


Back part of the Carriage with auto-PPS cam, after being activated in position 1.

Carriage impelling system

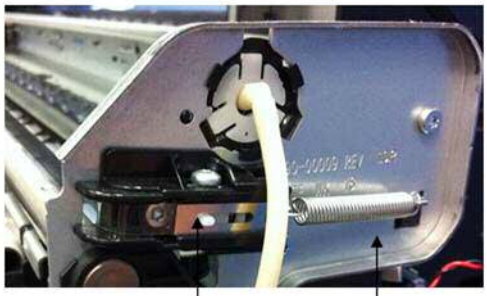

Carriage motor tensioning system
1) Motor is assembled on holder which slides on the scan axis chassis
1) Belt tensioning spring keeps the belt tension pulling from the motor holder
Carriage motor holder

http://www.justmanuals.com


Carriage motor tensioning spring
Carriage motor pulley
Carriage Belt
Carriage motor
Carriage motor cables, directly connected to the Main PCA

Carriage encoder system

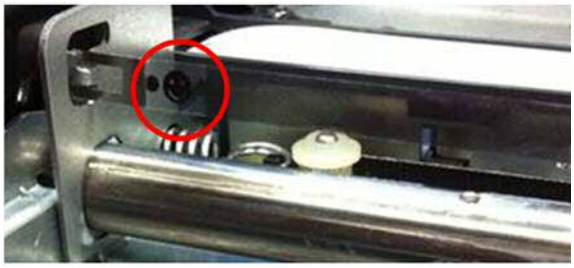
The encoder strip tension is also fixed by a tensioning spring. However, there is a mechanism to hold it in position after the spring places the strip at one specific tension. This is to prevent the spring from continually applying force over the encoder strip; which, over time and temperature changes, could make it creep.



Encoder strip tensioning system.

2) Encoder strip is tensioned by the spring force
3) After the encoder strip tension is set by the spring, it is then possible to lock the encoder position by the locking feature placed on the right plate of the scan axis to prevent long term creep created by the constant spring force

NOTE: When assembling the encoder strip, ensure that it is placed in the right orientation using the smiling symbol located on the sides of the encoder strip.

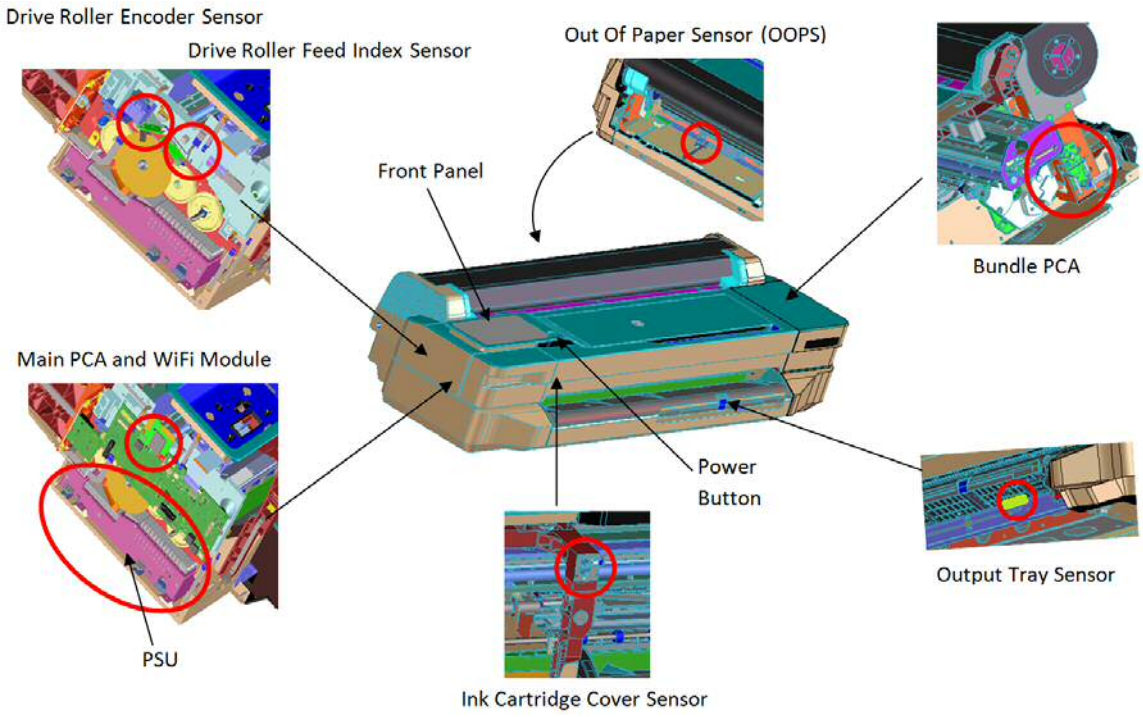


NOTE: Due to the proximity of the encoder strip to the greased sliding rod, it is easy to dirty the strip with grease when performing any repair operation in the area. Please clean any grease from the encoder strip if necessary. A dry cloth can be used for this purpose, to prevent any deformation or strain on the encoder strip while performing the cleaning.

Printer electronics, power supply, and cables

The printer contains several electronics boards and electrical and electronic components in different locations.

- There are two main active boards (Main PCA and Bundle PCA).
- One WiFi Module, which provides the WiFi functionality to the printer.
- One interface board (Carriage PCA), which provides and converts the appropriate signals for the Carriage (printhead interface and line sensor signaling) .
- Three on/off sensor PCAs (Top Cover Sensor, Out Of Paper Sensor or OOPS, Output Tray Sensor), which indicate the open/closed status of the different elements.
- One active on/off sensor (the Ink Cartridge Cover sensor). Apart from indicating the open/closed status of the ink cartridge cover, it includes the backup memory for all factory calibration values.
- One encoder sensor and a feed index sensor (other than the encoder sensors located inside the Rewinder, the Right Gear Module, and the Service Station).
- One Power Button PCA. Located in the front panel, it is used to power the printer on and off.
- One Power Supply (PSU), which converts the AC power line (110–240 V AC) into the DC power needed by the printer (32 V and 12 V).



The standard wiring used in the printer is Flat Flexible Cables (FFCs), to interconnect all boards (including sensors and encoders) and distributed cables for power signals to the motors.

NOTE: It is important to bear in mind that FFCs are relatively delicate, so please ensure cable connectors are not touched or dirtied during manipulation for assembly and disassembly operations.

NOTE: Ensure that you are properly grounded for any electronics or wiring manipulation.

http://www.justmanuals.com

The Main PCA

The Main PCA is located on the left-hand side of the printer. This board is the “brain” of the printer: where all the processing and printer management occurs; control of the overall machine (digital and mechatronics) with the battery for the Real-Time Clock.

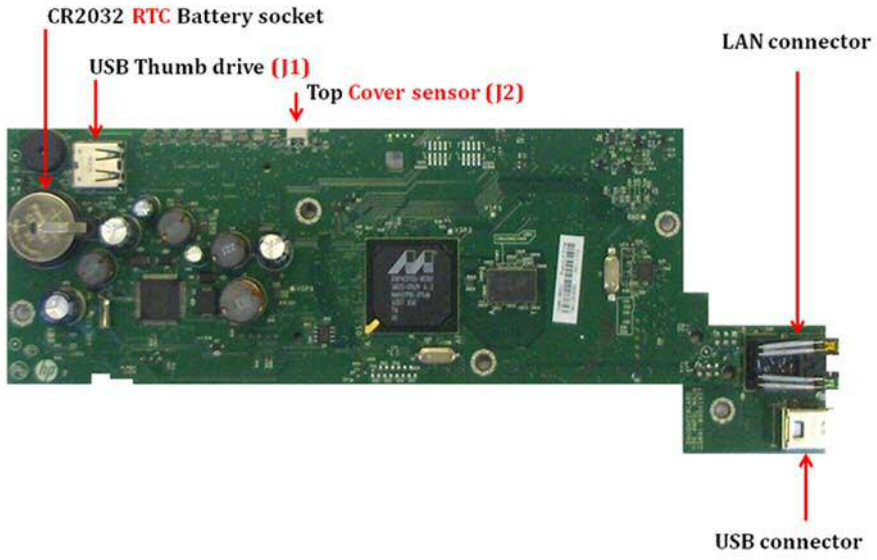
There are two versions depending on memory size: Basic (256 MB) for the T120 and Pro (1 GB) for the T520.

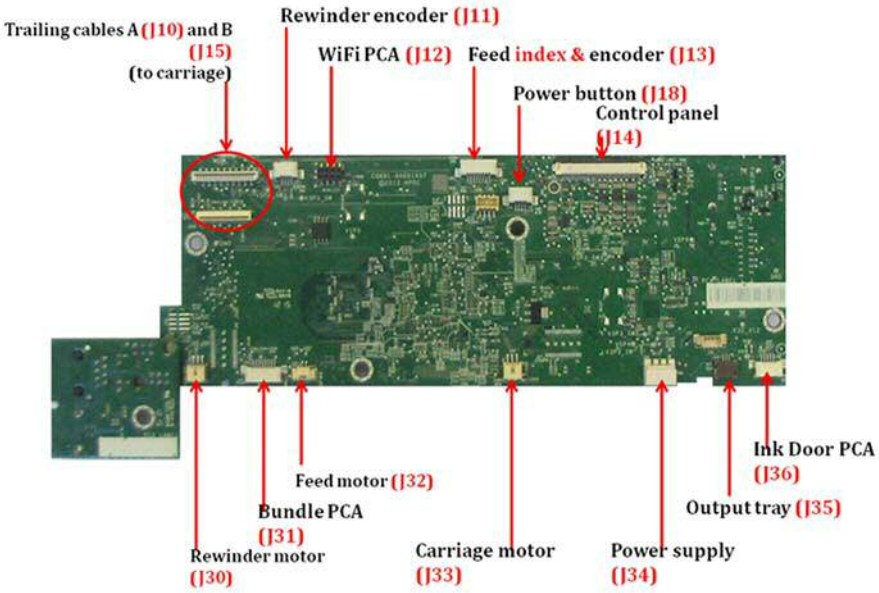
The Main PCA also contains other elements with the following functions:

- Battery: To maintain the internal clock up and running. The internal clock is used to remember the actual date, used for cartridge life counting and warranty accounting.
- WiFi module: Attached to the top of the board with some plastic locators, provides WiFi functionality to the printer.
- USB dongle: Where the firmware of the printer is stored.

NOTE: This dongle does not operate as a standard USB drive. It is a customized device designed to interact with the main electronics, and all the data are appropriately encrypted.

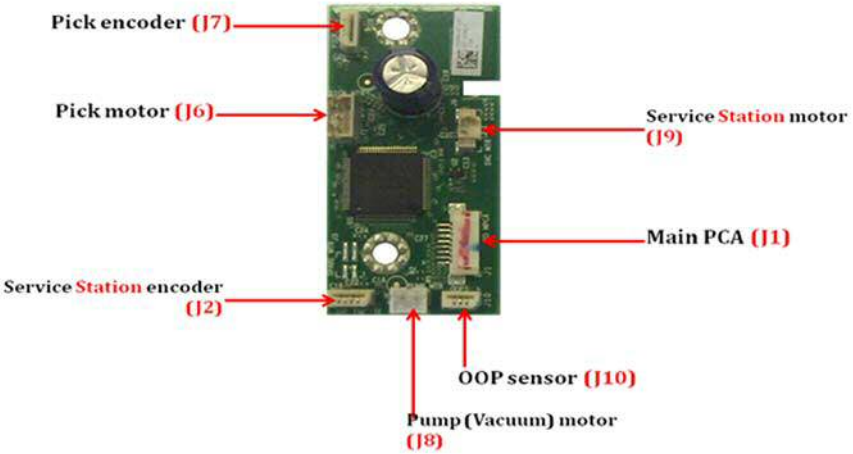
- Buzzer: To provide acoustic signals to the user.





The Bundle Board

The Bundle Board is located on the right-hand side of the printer, this board includes a driver ASIC to control and manage the motor, encoder, and sensors located on the right-hand side of the printer.

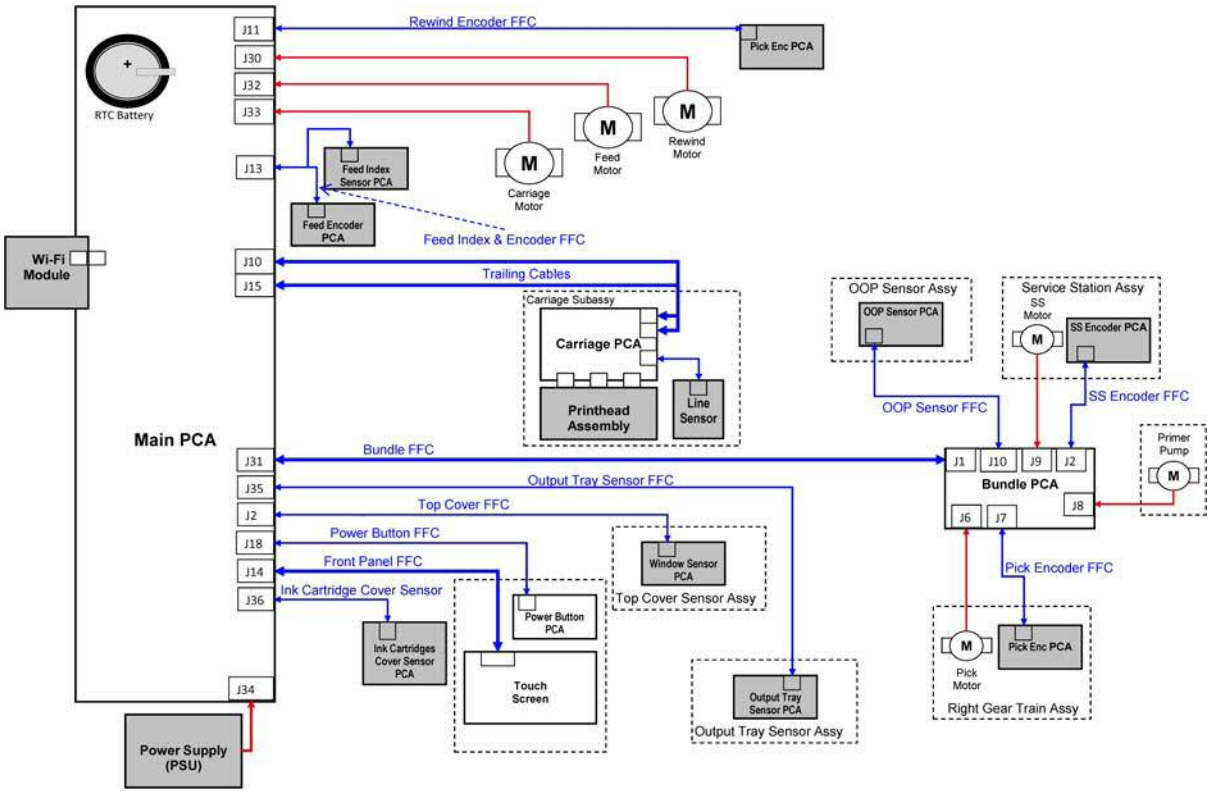


IMPORTANT: The pick encoder and Service Station cables are not poka-yoke cables: it is possible to connect them incorrectly, in which case a system error will result.

Electrical system

The following diagram describes the connections between components and electronic boards, the voltage, and the type of data line.

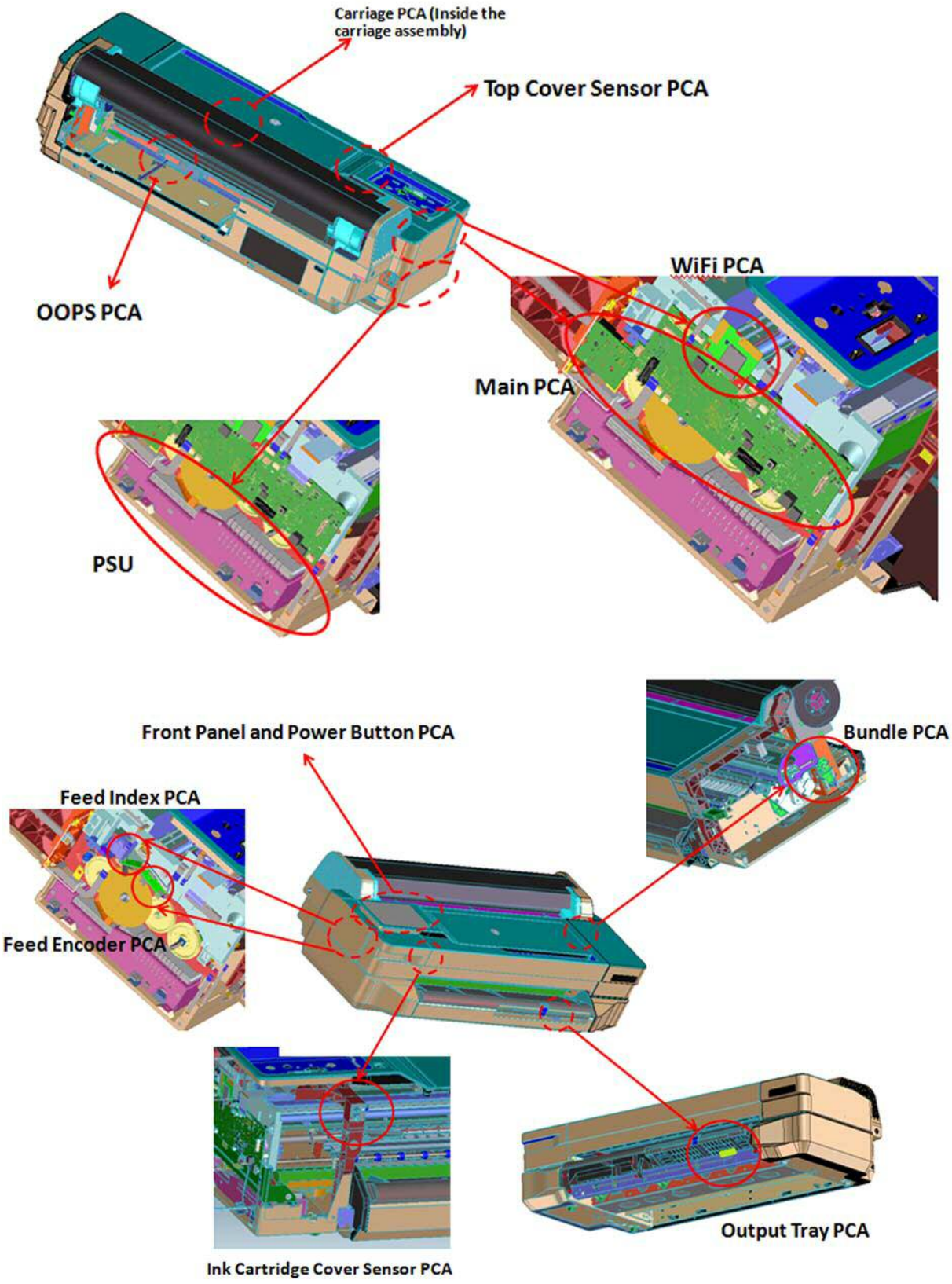
http://www.justmanuals.com



- The printer contains a total of 11 printed circuit boards (PCA).
- The OOP sensor, Top Cover, and Feed Index are exactly the same board.
- The WiFi PCA, although included in the Main PCA Service Kit, is a different board used in other products.

Part	Brief technical function
Main PCA (PRO/BASIC)	Has two versions depending on memory size: Basic (256 Mb) and Pro (1Gb)
Bundle Board	Mechatronics driver for the right part of the machine motors and encoder
Front panel and power button	Tactile color visual screen with buzzer for machine power up and down, control, and user interface
Ink Cartridge cover Sensor	Ink Cartridge Cover opening state control
Carriage PCA => Part of Carriage assembly	Carriage control and feed for printhead spitting
OOPS	Paper presence detection
Output Tray sensor	Front tray state control (open or closed)
Top Cover sensor	Top Cover state control (open or closed)
Feed index	Encoder to detect the paper placement (absolute)
Feed encoder	Encoder to control the exact advance of the paper (relative)
Wifi PCA	Radio module (including antenna) to give wireless capabilities (802.11 b/g)

Locations of the PCAs



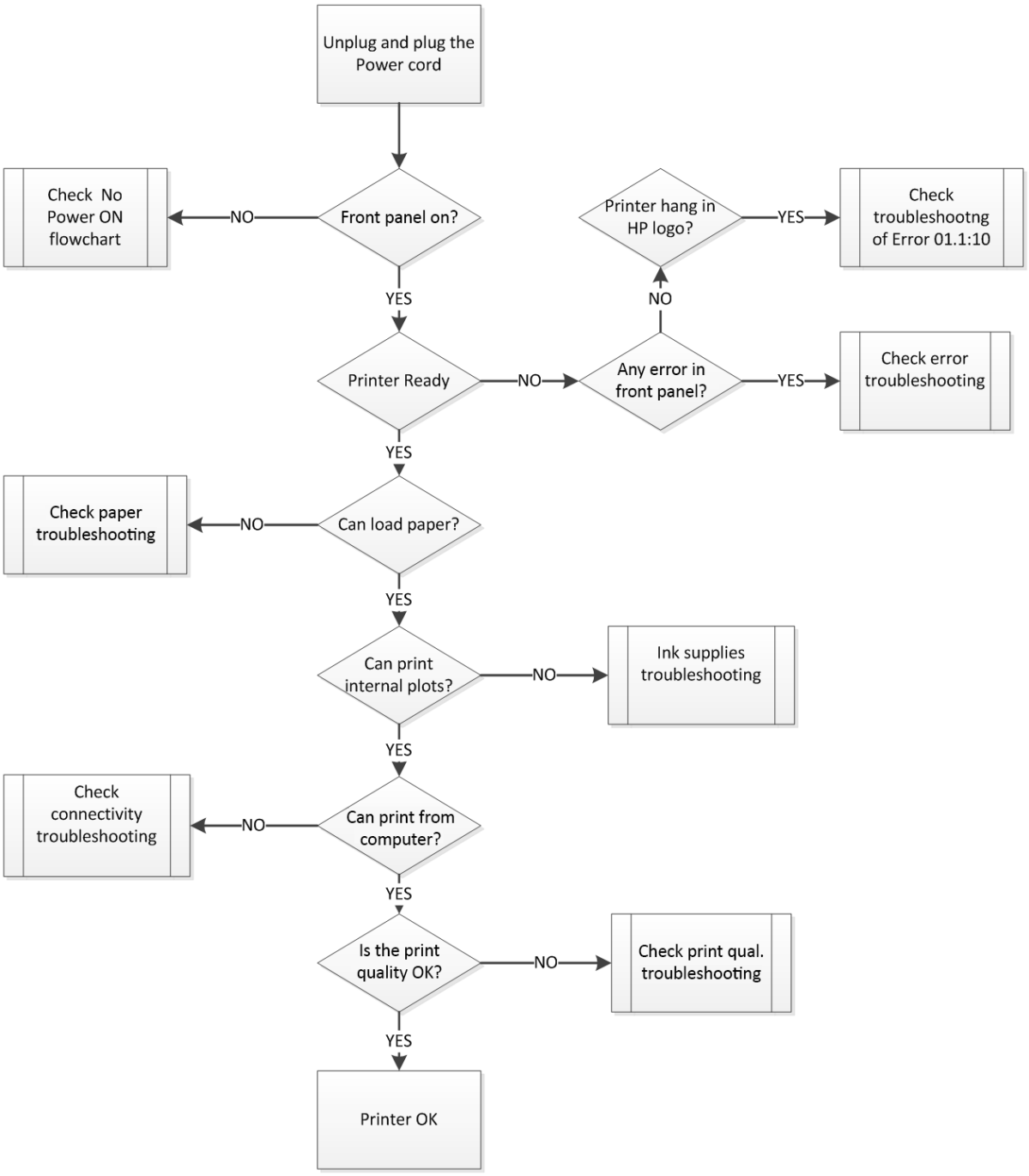
http://www.justmanuals.com

2 Troubleshooting

- Printer troubleshooting flowchart
- Basic printer troubleshooting
- System error codes
- Paper troubleshooting
- Communication troubleshooting
- Ink-supplies troubleshooting
- Print-quality troubleshooting
- Update the firmware

Printer troubleshooting flowchart

Use the following as a guide to troubleshooting issues with the printer:



http://www.justmanuals.com

Basic printer troubleshooting

The printer does not print

If all is in order (paper loaded, all ink components installed, and no file errors), there are still reasons why a file you have sent from your computer may not start printing when expected:

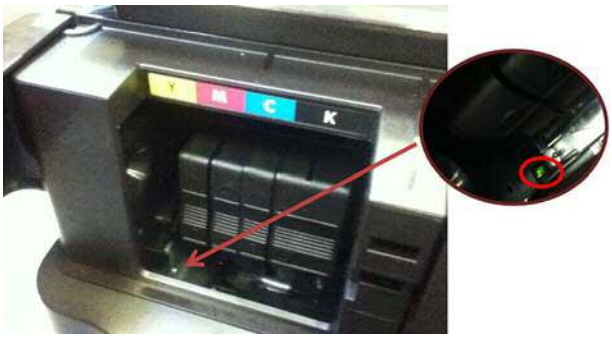
1. You may have an electrical power problem. If there is no activity at all from the printer, and the front panel does not respond, check that the power cord is connected correctly and that there is power available at the socket.
2. You may be experiencing unusual electromagnetic phenomena, such as strong electromagnetic fields or severe electrical disturbances, which can cause the printer to behave strangely or even stop working. In this case, turn off the printer using the power key on the front panel and unplug the power cord, wait until the electromagnetic environment has returned to normal, then turn it on again. If you still experience problems, please contact your customer service representative.
3. You may not have installed in your computer the correct driver for your printer.
4. If you are printing on a sheet, you must specify Printer Autoselect or Single-Sheet or Multi-Sheet Tray as the paper source in your printer driver.

The Front Panel is blank (the printer does not start)

If the printer does not start (the front panel is blank), try the following:

Remote troubleshooting

1. Ask the customer to unplug and plug in the power cord. The customer should check when the power cord is plugged in that the front panel is illuminated (white) for a few moments, after which the printer should start the initialization process.
2. If the front panel is still blank (does not show a flashing white screen), and the printer does not start up, then ask the customer to hold down the Power key for a few seconds and ask to check whether the Power LED button turns orange while the key is held down.
3. If the customer does not see the orange light, no power is reaching the printer; ask to check that the power cord is correctly plugged in. If the problem persists, there is a problem with the power supply. Arrange a service engineer visit to replace the Power Supply, see Power Supply on page 202.
    - Main Power Supply – CQ890-67025
4. If the customer sees the orange light, ask to unplug and plug in the power cord and to listen and wait for around 30 seconds for the printer to make a beeping sound.
5. Three beeps mean that the Front Panel has failed or the Front Panel cable is disconnected or damaged. Arrange a service engineer visit to check the cable and replace the Front Panel if needed, see Front Panel on page 165.
    - Front Panel – CQ890-67026
6. One long beep means an electronic problem. Arrange for a service engineer visit to replace the Main PCA. To check that the Main PCA is broken you can ask the customer to open the Ink Cartridge Cover and check whether there is a green light (heartbeat LED) flashing in the left bottom part .



If there is no light or it is not flashing the Main PCA should be replaced.

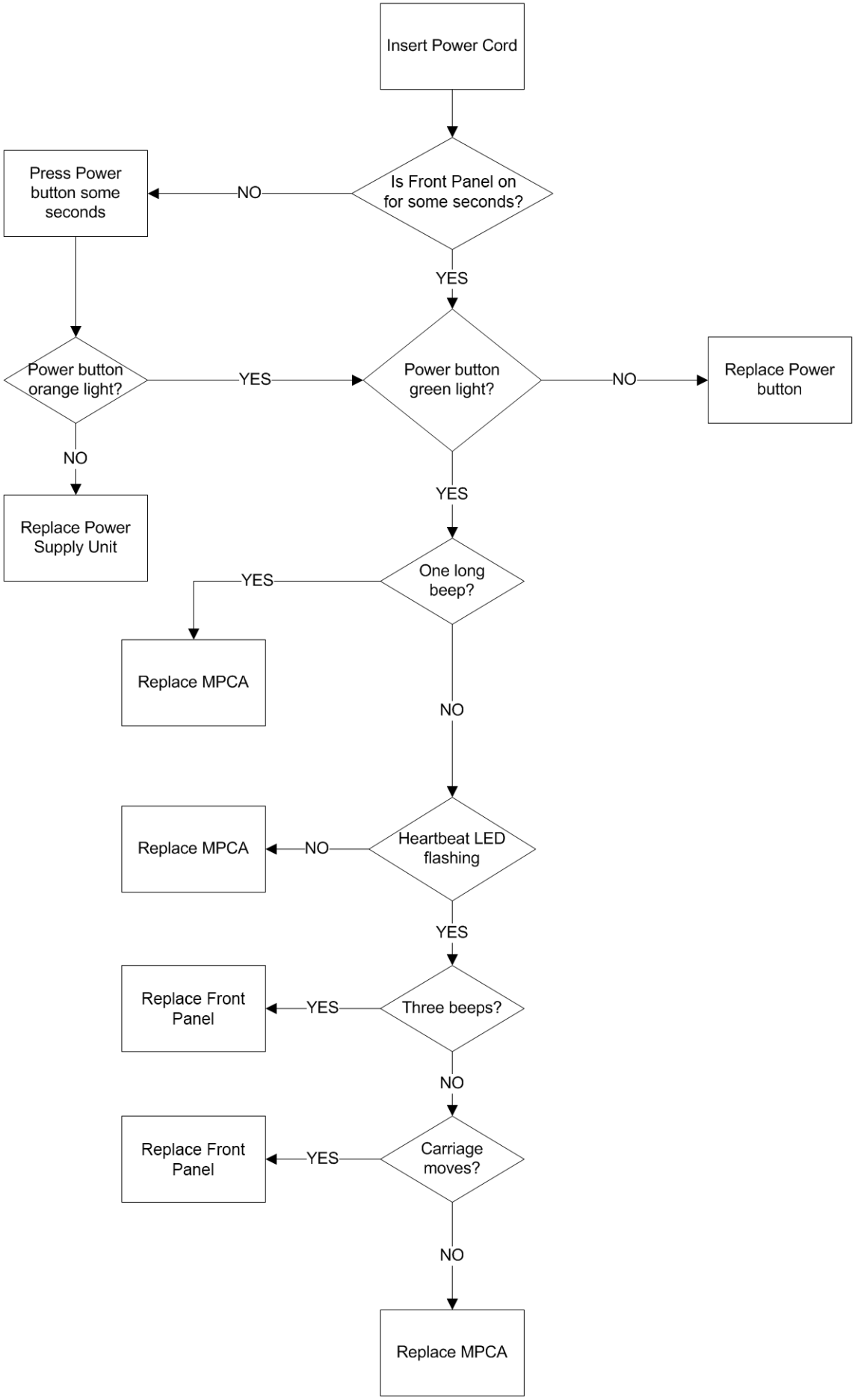
- Main PCA Basic: CQ891-67003
- Main PCA Pro: CQ890-67023

7. If the printer initializes and the Carriage moves but the front panel is still blank, the Front Panel should be replaced, see Front Panel on page 165.

   - Front Panel – CQ890-67026

See also the troubleshooting flowchart for this issue on the next page.

http://www.justmanuals.com


Insert Power Cord
Is Front Panel on for some seconds?
NO
Press Power button some seconds
YES
Power button green light?
NO
Replace Power button
YES
Power button orange light?
YES
NO
Replace Power Supply Unit
YES
One long beep?
YES
Replace MPCA
NO
Heartbeat LED flashing
NO
Replace MPCA
YES
Three beeps?
YES
Replace Front Panel
NO
Carriage moves?
YES
Replace Front Panel
NO
Replace MPCA

System error codes

Understanding system error codes

Error messages are generally used to report internal system errors. The following pages contain a list of system error codes and their respective descriptions and recommended corrective actions. Try only one recommended action at a time, in the order that they appear, and check whether the error code has disappeared.

Advisory error messages

Advisory error messages communicate that some action must be performed, such as adding paper or clearing a paper jam. Take the appropriate action to continue printing.

Problem type	Message (with customer troubleshooting)	Details for call agent
Printhead missing/Not detected/ Incompatible	The printhead appears to be missing, not detected, or incorrectly installed.	See Printhead troubleshooting on page 80.
Ink Cartridge problem	The following cartridges appear to be missing or damaged [list of affected supplies]	Replace the listed supplies. See Replace an ink cartridge on page 70.
Ink Sensor failure (sensor inside the PHA)	Ink Sensor failure	This error is continuable (the customer can press OK and keep working). However if the message appears continuously after restarting the printer or while sending new jobs, it is very likely that the Carriage PCA is not working properly. Arrange a service engineer visit to change the Carrriage.
Paper mismatch	Paper detected does not match paper size or type selected.	If the paper size is correct, check that the line sensor is OK by running the Line Sensor diagnostic from the Support Menu.
Paper jam	There is a paper jam (or misfeed). Clear the jam and press Resume on the printer.	This occurs when trying to load the paper. There is no need to turn off the printer. Run the Carriage Servo and Paper Servo diagnostics from the Support Menu.
	There is a paper jam (or misfeed) in the scan path. Clear the jam or re-insert the document and restart the task.	This occurs when the paper is already loaded. There is no need to turn off the printer. Run the Carriage Servo diagnostic from the Support Menu.
The printer is out of paper	Load more paper and press Resume on the front of the printer.	Run OOP sensor diagnostic from the Support Menu.
Incompatible Cartridge(s)	The cartridge is not intended for use in this printer.	Ask the customer to install the correct ink cartridge.
Ink Cartridge Cover open	Replace ink cartridges and close the ink cartridge cover.	Perform the ink cartridge cover sensor diagnostic from the Support Menu.
Top Cover open	Please close Top Cover	Perform the Top Cover sensor diagnostic from the Support Menu.

http://www.justmanuals.com

Problem type	Message (with customer troubleshooting)	Details for call agent
Load paper	The printer is not able to complete the load because it cannot detect the paper	Perform the OOP sensor diagnostic from the Support Menu.
Out of memory	Out of memory	Job sent to the printer too complex, see the user's guide for more details.
Improper shutdown	To avoid damage, use the On button to shut down. Do not use a power strip or wall switch to shut down.	Follow the front-panel message.
Printer or ink system error	There is a problem with the printer or ink system. Turn printer off, then on. If the problem persists, contact HP.	Ask the customer to retrieve the Error History, see 1.5 Error history on page 104. Ask the customer which of these 2 errors are logged: • 26:10 • 27:10 Follow the applicable error troubleshooting.

Severe error codes

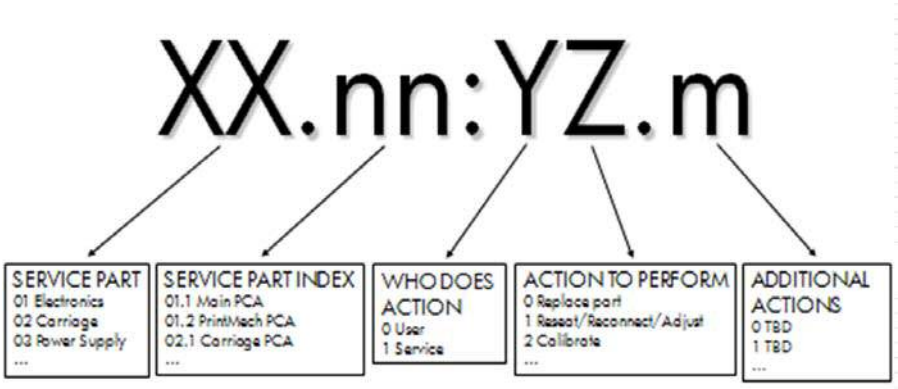
Severe error messages inform you of a device failure. Some of these messages can be cleared by pressing the Power button to turn off the printer, and then pressing it again to turn the printer back on. If a severe error persists, service is required.

System error	Component/System
01.1:10	Main PCA (MPCA) failure
01.1:19	Incorrect Main PCA installed
01.3:10	Bundle Board failure
02:10	Carriage Board Failure
03.1:10	Battery of Real-Time Clock ran down
08:10	Front Panel does not respond
21:10	Service Station (SS) failure
21.1:10	Pump motor failure
26:10	Ink system failure
27:10	Generic printhead error
41:10	Paper servo error
41.1:10	Right Rear Gear Train (picking motor) failure
41.2:10	Paper/Feed motor failure
42:10	Carriage servo error
42.1:10	Carriage motor failure
45:10	Rewinder motor failure
51:10	Top Cover sensor failure
51.1:10	Ink Cartridge Cover Sensor failure
53.1:10	OOP sensor failure
53.2:10	Output Tray sensor failure
55:10	Line Sensor failure
59.1:19	S/N Mismatch
59.2:19	An unsupported or reused NVM has been installed
79:03	Generic printer error (NVM reseated)
79:04	Generic printer error (FW assert)
85.1:10	Feed Index Sensor failure
85.2:10	Feed Encoder Sensor failure
87:10	Encoder Strip failure

http://www.justmanuals.com

How to interpret severe error codes

The severe error codes can be composed of five fields:



The two first fields before the (:) are the service part and the service index (if there is more than one, as in PCAs or motors). For call agents and service engineers the most important parts to know are the fields **WHO DOES THE ACTION** and **ACTION TO PERFORM**. These two fields can give guidance as to the most appropriate course of action if this error code is displayed.

Who should perform action	Action to perform
0 User	**0** Replace
1 Service engineer	**1** Reseat/Reconnect/Clean/Adjust (manually)
	2 Calibrate/Adjust (using Automatic Process)
	3 Power Off and Restart the Printer
	4 Upgrade System Firmware
	5 Upgrade Driver or Computer Software
	6 Add Accessory
	7 Escalate
	8 Send Print Again
	9 Wrong Part Installed

System error code troubleshooting

This section describes each of the severe errors that may be encountered while using the printer, and provides the diagnostic method and the actions required to solve the problem detected.

In general, each error is explained for two different situations:

1. For a call agent to solve remotely with the customer
2. If necessary, for an onsite service engineer to solve

NOTE: When more than one component could be affected by the system error, replace one component at a time and check whether the error has gone before replacing another component. **Do not replace two electronic parts at same time!** Using this procedure you will be able to determine exactly which component failed.

System error:	**01.1:10 (Equal to 1 long beep during startup sequence)**
Problem description:	Communication with Main PCA (MPCA) failed
Other potential parts associated:	WiFi module, Trailing Cable, Bundle PCA FFC cable, cables kit
How to solve. Follow this procedure:	**Remote troubleshooting (call agent)**

1. This error never appears in the Front Panel, it's only logged into the Error History and is equivalent to 1 long beep during printer startup. It happens when the MPCA communication fails.
2. To troubleshoot this error, see The Front Panel is blank (the printer does not start) on page 36.
3. If a service engineer visit should be arranged to replace the Main PCA, take into account the model of the printer (the Main PCA is different for Pro and Basic models).

Onsite troubleshooting and solution (service engineer)

1. Remove covers and check that all the cables in the MPCA are correctly connected, and that none of them are damaged. If any cable is disconnected then reconnect it, and power on the printer again to check if the error message has disappeared. Important note: If any cable is damaged replace the cable:
   - Cables Sk – CQ890-67021
2. Replace Main PCA (MPCA), see Main PCA on page 205).
   - Main PCA Basic: CQ891-67003
   - Main PCA Pro: CQ890-67023

   NOTE: We recommend updating the printer's firmware after this procedure. See Update the firmware on page 97.

   NOTE: If printer was connected to the Internet before repair, we recommend performing Web Services Setup. See the user's guide.

System error:	**01.1:19**
Problem description:	Incorrect Main PCA installed
Other potential parts associated:	None
How to solve. Follow this procedure:	**Onsite troubleshooting and solution (service engineer)**

1. This system error happens if a Main PCA Basic is assembled in a Pro printer. To solve the issue, install the correct Main PCA Pro in the printer.
   - Main PCA Basic: CQ891-67003
   - Main PCA Pro: CQ890-67023

   See Main PCA on page 205 for the installation instructions.

System error:	**01.3:10**
Problem description:	Bundle board communication failure

http://www.justmanuals.com

Other potential parts associated:	Bundle FFC, Main PCA
How to solve.	**Remote troubleshooting (call agent)**

1. Switch the power off and disconnect the power cord. Reconnect the power cord and power on the printer.
2. The call agent should arrange a service engineer visit to change the Bundle PCA and follow steps below on Onsite Troubleshooting:
    - Bundle Board – CQ890-67022
3. If a different system error is displayed then the call agent should perform the applicable troubleshooting procedure.

Onsite troubleshooting and solution (service engineer)

1. Remove covers and check that all the cables in the Bundle PCA and associated parts are correctly connected, and that none of them is damaged. If any cable is disconnected then reconnect it, and power on the printer again to check whether the system error has disappeared. **Important note:** If any cable is damaged then order a Cable Service Kit:
    - Cables Sk – CQ890-67021
2. Replace the Bundle PCA, see Bundle Board on page 297.
    - Bundle Board – CQ890-67022
3. Replace the Bundle FFC cable, see Bundle Board FFC cable on page 299.
4. Replace the Main PCA (MPCA See Main PCA on page 205)
    - Main PCA Basic: CQ891-67003
    - Main PCA Pro: CQ890-67023

System error:	**02:10**
Problem description:	Carriage PCA communication failure

Other potential parts associated: Trailing Cables, Printhead, Encoder Strip

How to solve.

Onsite troubleshooting and solution (service engineer)

1. Remove covers and check that the Trailing cables are connected from the Main PCA or from the Carriage PCA. If any cable is disconnected then reconnect it, and power on the printer again to check whether the error message has disappeared.
2. Go to Support Menu, see Entering the Extended Support Menu for service engineers on page 103 and perform 2.1 Carriage Servo, see 2.1 Carriage servo on page 106 to check that the error has disappeared.
3. Replace the Encoder Strip, see Encoder Strip on page 193 and run the Carriage Servo diagnostics to see if the error has disappeared.
4. Replace the Carriage, see Carriage and Belt on page 236.
   - Carriage assembly w/belt (24) – CQ890-67002
   - Carriage assembly w/belt (36) – CQ893-67011
5. No calibrations needed, but the PMK 1 should be reset, see 3.4 PMK1 on page 124.
6. Replace the Main PCA, see Main PCA on page 205.
   - Main PCA Basic: CQ891-67003
   - Main PCA Pro: CQ890-67023

System error: **03.1:10**

Problem description: Real Time Clock (RTC) Battery ran down.

Other potential parts associated: None

How to solve.

Remote troubleshooting (call agent)

1. The call agent asks the customer to go to the **Support Menu** by pressing the Power key continuously for 15 seconds.
2. Go to the Diagnostics Menu and select RTC Battery Status to check whether the RTC Battery has actually expired, see 2.11 RTC battery status on page 117.
3. If yes, the call agent should arrange a service engineer visit to replace the RTC battery by replacing the Main PCA, see Main PCA on page 205.
   - Main PCA Basic: CQ891-67003
   - Main PCA Pro: CQ890-67023

Onsite troubleshooting and solution (service engineer)

1. Replace the Main PCA, see Main PCA on page 205.
2. Switch on the printer and go to **Extended Support Menu**. Select **RTC Battery Expired** option from the **Reset Menu in order to** reset the RTC battery expired flag.
3. Go back and select **Set Date and Time** from the **Service Menu**. Set the correct date and time.

System error: **08:10 (Equals to 3 beeps during start up sequence)**

http://www.justmanuals.com

Problem description: Front Panel does not respond

Other potential parts associated: None

How to solve.

Remote troubleshooting (call agent)

1. This error never appears in the Front Panel, it is only logged into the Error History, and is equivalent to the 3 beeps during printer startup.
2. It happens when there is no communication between the Front Panel and the Main PCA, see The Front Panel is blank (the printer does not start) on page 36.

System error: **21:10**

Problem description: Service Station does not work properly or communication lost

Other potential parts associated: Bundle PCA

Corrective action:

Remote troubleshooting (call agent)

1. Switch the power off and disconnect the power cord. Reconnect the power cord and power on the printer.
2. The call agent should arrange a service engineer visit to change the Service Station, and follow the Onsite troubleshooting below:
    - Service station assy – CQ890-67045
3. If a different system error is displayed then the call agent should perform the applicable troubleshooting procedure.

Onsite troubleshooting and solution (service engineer)

1. Remove covers and check that the cables from the Service Station to the Bundle PCA are correctly connected and not damaged. Important note: If any cable is disconnected then reconnect it, and power on the printer again to check whether the system error has disappeared. If any cable is damaged then order a Cable Service Kit.
    - Cables Sk – CQ890-67021
2. Make sure that the Service Station path is clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement of the Service Station.
3. Go to Support Menu, see Entering the support menus on page 102 and run 2.12 Service Station, see 2.12 Service Station on page 117 to check whether the system error has disappeared.
4. Replace the Service Station, see Service Station on page 227.
    - Service station assy – CQ890-67045
5. Replace the Bundle Board, see Bundle Board on page 297.
    - Bundle board – CQ890-67022

System error: **21.1:10**

Problem description: Prime Pump does not work

Other potential parts associated: Bundle PCA

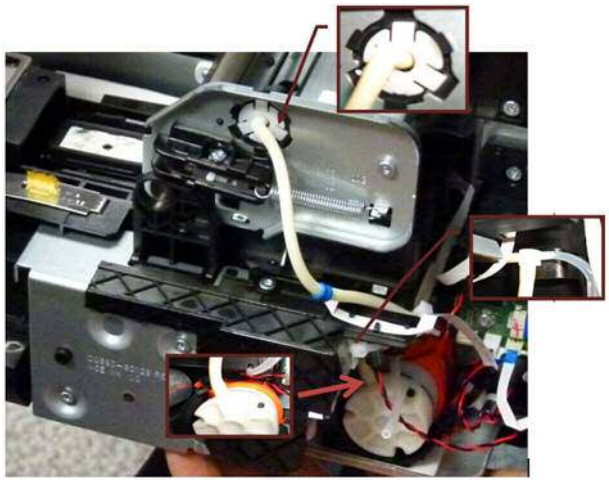
Corrective action:

Remote troubleshooting (call agent)

1. Switch the power off and disconnect the power cord. Reconnect the power cord and power on the printer.
2. The call agent should ask the customer to go to the Support Menu, by pressing the power key continuously for 15 seconds.
3. Go to Diagnostics menu and perform the 2.8 Pump diagnostic procedure, see 2.8 Pump on page 113.
4. The call agent should arrange a service engineer visit to change the Pump, and to follow the Onsite troubleshooting below.
    - Prime pump – CQ890-67030
5. If a different system error is displayed then the call agent should perform the applicable troubleshooting procedure.

Onsite troubleshooting and solution (service engineer)

1. Go to the Support Menu (see Entering the support menus on page 102) and perform the diagnostic procedure 2.8 Pump, see 2.8 Pump on page 113.
2. Remove the covers and check that the cable of the Prime Pump is connected to the Pump and Bundle PCA and it is not damaged. **Important note:** If the cable is not connected then reconnect it, and power on the printer again to check whether the error has disappeared. **Important note:** If the cable is damaged then order a Cable Service Kit:
    - Cables Sk – CQ890-67021
3. Check also that the tubes are well connected and not damaged. You can run the Pump diagnostic again to check for damaged tubes.



4. Replace the Pump motor, see Prime Pump on page 233.
    - Prime pump – CQ890-67030
5. Replace Bundle PCA, see Bundle Board on page 297.
    - CQ890-67022

System error: **26:10**

http://www.justmanuals.com

Problem description: Ink System Failure

Other potential parts associated: PHA, Service Station, Carriage PCA, Trailing Cables

Corrective action: **Remote troubleshooting (call agent)**

1. This error never appears in the Front Panel, it is only logged into the Error History and it is equivalent to the message: **There is a problem with the printer or ink system. Turn printer off, then on. If the problem persists, contact HP.**
2. See Ink system hardware troubleshooting on page 79.

System error: **27:10**

Problem description: Generic Printer Error

Other potential parts associated: Carriage PCA, Trailing Cables

Corrective action: **Remote troubleshooting (call agent)**

1. This error occurs only when the printhead is detected as faulty during first printer installation (Out Of the Box Experience). If it happens, follow printhead troubleshooting: see Printhead troubleshooting on page 80.

System error: **41:10**

Problem description: Paper Servo error

Other potential parts associated: Feed Encoder Sensor PCA, Feed Index Sensor PCA, Feed Encoder Disk

Corrective action: **Remote troubleshooting (call agent)**

1. Switch the power off and disconnect the power cord. Reconnect the power cord and power on the printer.
2. The call agent asks the customer to go to **Support Menu** by pressing the **Power key** continuously for 15 seconds.
3. Go to **2 Diagnostics** menu and run Paper Servo diagnostic, see 2.2 Paper servo on page 107.
4. After running the diagnostic the printer will show one of these system errors:
   - 41.2:10 arrange a service engineer to replace Paper/Feed motor and follow the Onsite Troubleshooting explained below, see Paper Motor on page 211.
     - Paper Motor – CQ890-67036
   - 85.2:10: need to replace Feed encoder sensor PCA and follow Onsite Troubleshooting explained on the 85.2:10 error .
5. The call agent should arrange a service engineer visit to replace the right part depending on the system error.

Onsite troubleshooting and solution (service engineer)

1. Go to the **Support Menu** (see Entering the support menus on page 102) and run diagnostic **2.2 Paper Servo**, see 2.2 Paper servo on page 107. If the system error continues, remove covers and check that all the cables are well connected to the Main PCA, specially the paper motor cable, and none of them are damaged. If any cable is not connected then reconnect it, and power on the printer again to check whether the

system error has disappeared. **Important note:** If any cable is damaged then order a Cable Service Kit.

- Cables Sk – CQ890-67021

2. If the 41.2:10 error continues then the Paper/Feed motor should be replaced. See Paper Motor on page 211.

   Paper Motor – CQ890-67036

3. Replace the Main PCA, see Main PCA on page 205.

   - Main PCA Basic – CQ891-67003
   - Main PCA Pro – CQ890-67023

System error: **41.1:10**

Problem description: Right Rear gear train failure

Other potential parts associated: Bundle PCA, Multi-Sheet Tray

Corrective action: **Remote troubleshooting (call agent)**

1. Switch the power off and disconnect the power cord. Reconnect the power cord and power on the printer.
2. The call agent should arrange a service engineer visit to change the Right Rear Gear Train, and follow the onsite troubleshooting below

   - Right rear gear train – CQ890-67041

3. If a different system error is displayed then the call agent should perform the applicable troubleshooting procedure.

Onsite troubleshooting and solution (service engineer)

1. Remove the Multi-Sheet Tray, see Multi-Sheet Tray Assembly on page 260 and check that there is no paper jam or anything in the gear of the tray preventing the movement.
2. Remove covers and check that the cables from the Right Rear gear train to the Bundle PCA are correctly connected and not damaged. If any cable is disconnected then reconnect it, and power on the printer again to check whether the system error has disappeared. **Important note:** If any cable is damaged then order a Cable Service Kit.

   - Cables Sk – CQ890-67021

3. Replace the Right Rear Gear Train, see Right Gear Train Module on page 245.

   - Right Rear Gear Train – CQ890-67041

4. Replace the Bundle Board, see Bundle Board on page 297.

   - Bundle Board – CQ890-67022

5. Replace the Multi-Sheet Tray assembly, refer Multi-Sheet Tray Assembly on page 260

   - Multi-Sheet Tray assembly – CQ890-67007

System error: **42:10**

Problem description: Carriage servo problem

http://www.justmanuals.com

Other potential parts associated: Trailing Cables, Carriage Board, Carriage Motor, Carriage Belt, Encoder Strip

Corrective action: **Remote troubleshooting (call agent)**

1. Switch the power off and disconnect the power cord. Reconnect the power cord and power on the printer.
2. The call agent asks the customer to go to **Support Menu** by pressing the **Power key** continuously for 15 seconds.
3. Go to **2 Diagnostics** menu and run **2.1 Carriage Servo** diagnostic, see 2.1 Carriage servo on page 106.
4. After running this diagnostic the printer will show one of these system errors:
    - 42.1:10 Replace the Carriage motor and follow the Onsite Troubleshooting described below, see Carriage Motor on page 268.
        - Carriage Motor – CQ890-67006
    - 02:10: Replace the Carriage Assembly and follow the Onsite Troubleshooting described below Carriage and Belt on page 236
        - Carriage assembly w/belt (24) – CQ890-67002
        - Carriage assembly w/belt (36) – CQ893-67011
5. The call agent should arrange a service engineer visit to replace the right part depending on the system error.

System error: **42:1:10**

Problem description: Carriage motor failure

Other potential parts associated: Carriage Belt, Main PCA

Corrective action: **Onsite troubleshooting and solution (service engineer)**

1. Go to the **Support Menu** (see Entering the support menus on page 102) and run the diagnostic **2.1 Carriage Servo**, see 2.1 Carriage servo on page 106.
2. Remove the covers and check that all the cables are well connected to the Main PCA, especially the Carriage motor cable, and that none of them are damaged. If a cable is not connected then reconnect it, and power on the printer again to check whether the system error has disappeared. **Important note:** If any cable is damaged then order a Cable Service Kit.
    - Cables Sk – CQ890-67021
3. Check that the Carriage Motor belt is not broken or out of place. If the belt is OK then the Carriage Motor should be replaced, see Carriage Motor on page 268.
    - Carriage Motor – CQ890-67006
4. If the belt was damaged, it should be changed. Order the belt service kit, see Carriage Belt on page 243.
    - Belt (24) – CQ890-67059
    - Belt (36) – CQ893-67016

System error: **45:10**

Problem description: Rewinder motor failure

Other potential parts associated: Main PCA

Corrective action: **Remote troubleshooting (call agent)**

1. Switch off the printer, and disconnect the power cord. Reconnect the power cord and power on the printer.
2. The call agent should arrange a service engineer visit to change the Rewinder module, and follow the Onsite troubleshooting below.
    - Left Roll Support Pro – CQ890-67037
    - Left Roll Support Basic – CQ890-67051
3. If a different system error is displayed then the call agent should perform the applicable troubleshooting procedure.

Onsite troubleshooting and solution (service engineer)

1. Remove the covers and check that the cables of the rewinder module are correctly connected to the Main PCA, and that none of them is damaged. If any cable is disconnected then reconnect it, and power on the printer again to check whether the system error has disappeared. **Important note:** If any cable is damaged then order a Cable Service Kit:
    - Cables Sk – CQ890-67021
2. Replace the Left Roll Support, see Left Roll Support on page 180.
    - Left Roll Support Pro – CQ890-67037
    - Left Roll Support Basic – CQ890-67051
3. Replace the Main PCA, see Main PCA on page 205.
    - Main PCA Pro – CQ890-67023
    - Main PCA Basic – CQ891-67003

System error: **51:10**

Problem description: Top Cover sensor failure

http://www.justmanuals.com

Other potential parts associated: Main PCA

Corrective action:

Remote troubleshooting (call agent)

1. Switch off the printer, and disconnect the power cord. Reconnect the power cord and power on the printer.
2. The call agent asks the customer to go to **Support Menu** by pressing the **Power key** continuously for 15 seconds.
3. Go to **2 Diagnostics menu** and run **2.4 Top Cover Sensor** diagnostic, see 2.4 Top Cover Sensor on page 109.
4. The call agent should arrange a service engineer visit to change the Ink Cartridge Cover Sensor PCA; follow the onsite troubleshooting below.
    - Ink Cartridge Cover Sensor – CQ890-67028
5. If a different system error is displayed then the call agent should perform the applicable troubleshooting procedure.

Onsite troubleshooting and solution (service engineer)

1. Go to **Support Menu** (see Entering the support menus on page 102) and run **2.4 Top Cover Sensor** diagnostic, see 2.4 Top Cover Sensor on page 109.
2. Replace the Top Cover Sensor PCA.
3. Remove the covers and check that the cable of the Top Cover sensor is connected to the Main PCA and is undamaged. If the cable is not connected then reconnect it, and power on the printer again to check that the error has disappeared. **Important note:** If the cable is damaged then order a Cable Service Kit.
    - Cables Sk – CQ890-67021
4. Replace the Main PCA, see Main PCA on page 205.
    - Main PCA Pro – CQ890-67023
    - Main PCA Basic – CQ891-67003

System error: **51.1:10**

Problem description: Ink Cartridge Cover sensor failure

Other potential parts associated: Main PCA

Corrective action: **Remote troubleshooting (call agent)**

1. Switch off the printer, and disconnect the power cord. Reconnect the power cord and power on the printer.
2. The call agent should arrange a service engineer visit to change the Ink Cartridge Cover Sensor PCA, and follow the Onsite troubleshooting below.
    - Ink Cartridge Cover Sensor – CQ890-67028
3. If a different system error is displayed then the call agent should perform the applicable troubleshooting procedure.

Onsite troubleshooting and solution (service engineer)

1. Replace the Ink Cartridge Cover Sensor PCA, see Ink Cartridge Cover PCA Assembly on page 198.
    - Ink Cartridge Cover Sensor – CQ890-67028
2. Check that the cable of the Ink Cartridge Cover sensor is connected to Main PCA and is undamaged. If the cable is not connected then reconnect it, and power on the printer again to check that the error has disappeared. **Important note:** If the cable is damaged then order a Cable Service Kit.
    - Cables Sk – CQ890-67021
3. Replace the Main PCA, see Main PCA on page 205.
    - Main PCA Pro – CQ890-67023
    - Main PCA Basic – CQ891-67003

System error: **53.1:10**

Problem description: OOP (Out-Of-Paper) Sensor failure

Other potential parts associated: Bundle PCA, Bundle FFC, Main PCA

Corrective action: **Remote troubleshooting (call agent)**

1. Switch off the printer, and disconnect the power cord. Reconnect the power cord and power on the printer.
2. The call agent will ask the customer to go to **Support Menu** by pressing the **Power key** continuously during 15 seconds
3. Go to **Diagnostics** and run **2.5 OOP Sensor** diagnostic, see 2.5 Out-Of-Paper Sensor on page 110.
4. The call agent should recommend the customer to power off the printer, remove the Multi-tray sheet module, and check that there is no paper behind it, then power on the printer

http://www.justmanuals.com

to see whether the error continues. If yes, send the customer an OOP Sensor module (CSR B part).

- OOP Sensor flag – CQ890-67032

5. If a different system error is displayed then the call agent should perform the applicable troubleshooting procedure.
6. If, after the customer replaces the OOP Sensor, the failure still continues, the failure may be due to the OOP Sensor cable, so the call agent should order an onsite engineer with the cables kit:

   - Cables Sk – CQ890-67021
   - OOP Sensor flag – CQ890-67032

Onsite troubleshooting and solution (service engineer)

1. Go to the **Support Menu** (see Entering the support menus on page 102) and run **2.5 OOP Sensor** diagnostic see 2.5 Out-Of-Paper Sensor on page 110.
2. Remove the Multi-Sheet Tray at the back of the printer, see Multi-Sheet Tray Assembly on page 260, and check that there is no paper jammed in the OOP sensor; check also that the sensor is assembled correctly.
3. Replace the OOP Sensor assembly, see Out-Of-Paper Sensor on page 281.

   - OOP Sensor flag – CQ890-67032

4. Remove the covers and check that the cable of the OOP sensor is connected to Bundle PCA and is not damaged. If the cable is not connected then reconnect it, and power on the printer again to check whether the system error has disappeared. **Important note:** If the cable is damaged then order a Cable Service Kit.

   - Cables Sk – CQ890-67021

5. Replace the Bundle PCA, see Bundle Board on page 297.

   - Bundle Board – CQ890-67022

6. Replace the Bundle FFC cable, see Bundle Board FFC cable on page 299.
7. Replace the Main PCA, see Main PCA on page 205.

   - Main PCA Pro – CQ890-67023
   - Main PCA Basic – CQ891-67003

System error: **53.2:10**

Problem description: Output Tray sensor failure

Other potential parts associated: Main PCA, Output tray

Corrective action:

Remote troubleshooting (call agent)

1. Switch off the printer, and disconnect the power cord. Reconnect the power cord and power on the printer.
2. The call agent asks the customer to go to **Support Menu** by pressing the **Power key** continuously for 15 seconds.
3. Go to **Diagnostics menu** and run **2.6 Output Tray Sensor** diagnostic, see 2.6 Output Tray Sensor on page 111.
4. The call agent should send to the customer the Output Tray Sensor, which is a CSR part.
   - Output Tray Sensor Assembly – CQ890-90015

   NOTE: If, after the customer repair, the issue still continues, we recommend sending an onsite engineer with Cables Kit and Output Tray Sensor PCA. Follow the steps below on onsite troubleshooting.
   - Cables Sk – CQ890-67021
   - Output Tray Sensor PCA – CQ890-90015.
5. If a different system error is displayed then the call agent should perform the applicable troubleshooting procedure.

Onsite troubleshooting and solution (service engineer)

1. Go to the **Support Menu** (see Entering the support menus on page 102) and run **2.6 Output Tray Sensor** diagnostic, see 2.6 Output Tray Sensor on page 111. Check that the Output Tray is not damaged.
2. If the Output Tray is OK and the problem continues then replace the Output Tray Sensor PCA.
   - Output Tray Sensor PCA – CQ890-90015
3. Remove the covers and check that the cable of the Output Tray Sensor is connected to the Main PCA and is not damaged. If the cable is not connected then reconnect it, and power on the printer again to check whether the system error has disappeared. **Important note:** If the cable is damaged then order a Cable Service Kit (add part number and name of Cable Service Kit) and change the Output Tray sensor cable: see Output Tray Extender Sensor Cable on page 289.
   - Output Tray Sensor Assembly – CQ890-90015
4. Replace the Main PCA, see Main PCA on page 205.
   - Main PCA Pro – CQ890-67023
   - Main PCA Basic – CQ891-67003

System error: **55:10**

Problem description: Line sensor failure

http://www.justmanuals.com

Other potential parts associated: Carriage PCA, Trailing Cable, Main PCA

Corrective action:

Remote troubleshooting (call agent)

1. Switch off the printer, and disconnect the power cord. Reconnect the power cord and power on the printer.
2. The call agent asks the customer to go to the **Support Menu** by pressing the **Power key** continuously for 15 seconds.
3. Go to the **Diagnostics menu** and run **2.7 Line Sensor** diagnostic, see 2.7 Line Sensor on page 112.
4. The call agent should arrange a service engineer visit to change the Line Sensor assembly; follow the onsite troubleshooting below.
    - Line Sensor – CQ890-67001
5. If a different system error is displayed then the call agent should perform the applicable troubleshooting procedure.

Onsite troubleshooting and solution (service engineer)

1. Go to the **Support Menu** (see Entering the support menus on page 102) and run **2.7 Line Sensor** diagnostic, see 2.7 Line Sensor on page 112.
2. Remove the covers and check that the cable of the line sensor is connected to the Carriage PCA and it is not damaged. If the cable is not connected then reconnect it, and power on the printer again to check whether the error has disappeared. **Important note:** If the cable is damaged then replace the Line Sensor, see Carriage Line Sensor on page 293.
    - Line Sensor – CQ890-67001
3. Clean the Line Sensor and try again, see Clean the Carriage Line Sensor on page 314.
4. Replace the Carriage Assembly, see Carriage and Belt on page 236.
    - Carriage assembly w/belt (24) – CQ890-67002
    - Carriage assembly w/belt (36) – CQ893-67011
5. Replace the Main PCA, see Main PCA on page 205
    - Main PCA Pro – CQ890-67023
    - Main PCA Basic – CQ891-67003

System error: **59.1:19**

Problem description: Main PCA and Ink Cartridge Sensor PCA replaced at the same time

Other potential parts associated: None

Corrective action:

Onsite troubleshooting and solution (service engineer)

1. The error appears if, during a service operation, the Main PCA and the Ink Cartridge Cover Sensor PCA are replaced at the same time.
2. To recover, do the repair by changing first one component (use the old component for this printer); after powering the printer off and on, change the other.

System error: **59.2:19**

Problem description: An unsupported or reused part has been installed

Other potential parts associated: None

Corrective action: **Onsite troubleshooting and solution (service engineer)**

1. The error appears if, during a service operation, the Main PCA or the Ink Cartridge Cover Sensor PCA are replaced by a reused part (not a new spare part).
2. To recover, do the repair using HP genuine new spare parts.

System error: **79:XX**

Problem description: Generic Printer Error

Other potential parts associated: None

Corrective action: Turn the printer off and on again.

System error: **85.1:10**

Problem description: Feed index encoder sensor does not work properly

Other potential parts associated: Main PCA, Feed Encoder Disk

Corrective action: **Remote troubleshooting (call agent)**

1. Switch off the printer, and disconnect the power cord. Reconnect the power cord and power on the printer.
2. The call agent should arrange a service engineer visit to change the Feed Index PCA and follow onsite troubleshooting below.
    - Feed Index encoder sensor PCA – CQ890-67020
3. If a different system error is displayed then the call agent should perform the applicable troubleshooting procedure.

Onsite troubleshooting and solution (service engineer)

1. Remove the covers and check that all the cables are well connected to the Main PCA, and none of them are damaged. If any cable is not connected then reconnect it, and power on the printer again to check whether the system error has disappeared.
   Important note: If any cable is damaged then order a Cable Service Kit.
    - Cables Sk – CQ890-67021
2. Replace the Feed Index Encoder Sensor PCA, see Encoder PCA and Index on page 213
    - Feed Index encoder sensor PCA – CQ890-67020
3. Check that the Encoder Disk is not dirty or damaged. If the Encoder Disk is damaged, it should be replaced, see Encoder Disk on page 217.
    - Encoder Disk– CQ890-67033

System error: **85.2:10**

http://www.justmanuals.com

Problem description: Feed encoder sensor does not work properly

Other potential parts associated: Main PCA, Feed encoder Disk

Corrective action:

Remote troubleshooting (call agent)

1. Switch off the printer, and disconnect the power cord. Reconnect the power cord and power on the printer.
2. The call agent should arrange a service engineer visit to change the Feed encoder sensor PCA.
    - Feed Encoder Sensor PCA – CQ890-67020
3. If a different system error is displayed then the call agent should perform the applicable troubleshooting procedure.

Onsite troubleshooting and solution (service engineer)

1. Remove the covers and check that all the cables are well connected to the Main PCA, and none of them are damaged. If any cable is not connected then reconnect it, and power on the printer again to check whether the system error has disappeared.
   Important note: If any cable is damaged then order a Cable Service Kit.
    - Cables Sk – CQ890-67021
2. Replace the Feed Encoder Sensor PCA , see Encoder PCA and Index on page 213.
    - Feed Encoder Sensor PCA – CQ890-67020
3. Check that the Encoder Disk is not dirty or damaged. If the Encoder Disk is damaged it should be replaced, see Encoder Disk on page 217.
    - Encoder Disk – CQ890-67033

System error: **87:10**

Problem description: Encoder Strip failure

Other potential parts associated:	None
Corrective action:	**Remote troubleshooting (call agent)**

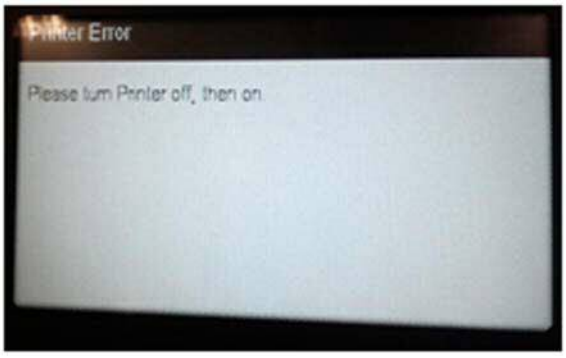
1. Switch off the printer, and disconnect the power cord. Reconnect the power cord and power on the printer.
2. The call agent should arrange a service engineer visit to change the Encoder Strip and follow onsite troubleshooting below.
    - Encoder Strip (24) – CQ890-67003
    - Encoder Strip (36) – CQ890-67004
3. If a different system error is displayed then the call agent should perform the applicable troubleshooting procedure.

Onsite troubleshooting and solution (service engineer)

1. Remove the covers and check that Encoder Strip is not broken or dirty.
    - Cables Sk – CQ890-67021
2. If the Encoder Strip is dirty, follow the procedure in this manual to clean it, see Clean the Encoder Strip on page 315.
3. If the Encoder Disk is damaged or does not work, it should be replaced, see Encoder Disk on page 217.
    - Encoder Disk – CQ890-67033

Other possible errors

Although infrequent, there are errors and asserts that can be displayed in the Front Panel in a different format. Usually these errors are solved by turning the printer off and on. Examples of these errors are shown here:



http://www.justmanuals.com





How to get the system error log

To see the last 10 system errors on the Front Panel, go to the Service Menu, enter the Information Menu, and request the error history; see 1.5 Error history on page 104.

To print the error history, go to the Service Menu, enter the Reports Menu, and request the error history; see 4.2 Error history on page 120.

Paper troubleshooting

Use the following section to troubleshoot paper-related issues when the problem has not been solved by following the troubleshooting of paper issues in the user's guide.

For every paper issue, first make sure you have reviewed the paper supported by the product (type and size). Also make sure the customer has followed the user's guide instructions to load the paper. In summary, check that the customer is:

- Using supported paper
- Using appropriate paper path
- Following the front-panel instructions

For further detailed information about HP Large-Format Printing Supplies, see http://www.hp.com/go/designjet/supplies.

Paper cannot be loaded successfully

Remote troubleshooting (call agent)

- Check that the customer has followed the paper troubleshooting included in the user's guide, if not, help the customer to do it.
- If the problem persists, ask the customer to restart the printer.
- If the paper still cannot be loaded after restarting, follow the next recommendations depending on the type of paper the user is trying to load (roll, single sheet, or from the Multi-Sheet Tray).

Unsuccessful roll load

1. Ensure that the Output Tray is closed. If the Output Tray is open, ask the customer to close it and try to load the roll again.
2. Ask the customer to try to print from the Multi-Sheet Tray. If he can print from the Multi-Sheet Tray, it means that the OOP sensor and the paper motor work correctly. Ask the customer to re-check that there are no pieces of paper stuck in the paper path.
3. If no anomalies are detected, ask the customer to cut 10 cm of the paper roll or use a new roll (if possible) and try to load the roll again.
4. If no anomalies are detected, ask the customer to run the OOP sensor diagnostics (see 2.5 Out-Of-Paper Sensor on page 110). If they fail the OOP sensor should be replaced, arrange the shipment of an OOP sensor (CSR A part) to the customer.
5. If the OOP sensor diagnostics pass, arrange a service engineer visit to diagnose the issue.

Unsuccessful sheet load

1. Ensure that the Output Tray is closed. If the Output Tray is open, ask the customer to close it and try to load the sheet again.
2. Ask the customer to try to print from the Multi-Sheet Tray. If he can print from the Multi-Sheet Tray, it means that the OOP sensor and the paper motor work correctly. Ask the customer to re-check that there are no pieces of paper stuck in the paper path.

http://www.justmanuals.com

3. If no anomalies are detected, ask the customer to try to load a different paper type (roll or single sheet). If the load is successful, check with the customer that the type of paper failing to load is a supported paper.
4. If the paper is supported, ask the customer to run the OOP sensor diagnostics (see 2.5 Out-Of-Paper Sensor on page 110). If the diagnostics fail, the OOP sensor should be replaced, arrange the shipment of an OOP sensor (CSR A part) to the customer.
5. If the OOP sensor diagnostics pass, arrange a service engineer visit to diagnose the issue.

Unsuccessful load from the Multi-Sheet Tray

1. Ask the customer to remove all the sheets from the Multi-Sheet Tray, and load only one sheet (A4 or A3). Try to print. If the load is correct, ensure that the customer has not loaded too many sheets into the tray, also that the paper is supported.
2. Ask the customer to ensure that the Multi-Sheet Tray is well positioned.
3. If one sheet works OK, but it fails with several, it could mean that there is a problem with the Multi-Sheet Tray. To check this, ask the customer if roll or single sheet can be loaded successfully. If yes, the Multi-Sheet Tray should be replaced, arrange the shipment of a Multi-Sheet Tray (CSR A part) to the customer.
4. If it is impossible to load a sheet through the Multi-Sheet Tray, and neither roll nor single sheet can be loaded, ask the customer to remove the Multi-Sheet Tray and re-check whether there is any piece of paper stuck in the tray.
5. If no anomalies are detected, ask the customer to run the OOP sensor diagnostics (see 2.5 Out-Of-Paper Sensor on page 110). If they fail, the OOP sensor should be replaced, arrange the shipment of an OOP sensor (CSR A part) to the customer.
6. If the OOP sensor diagnostics pass, arrange a service engineer visit to diagnose the issue.

Onsite troubleshooting

The service engineer should first follow the paper troubleshooting procedure in the user's guide, and also the instructions in this manual given to the customer by the call agent to double-check that the troubleshooting has been done correctly. In most cases the problem can be solved by following these instructions. If the problem persists, try the following:

1. Remove covers and check that there is no broken part in the following:
   - Starwheel rail
   - Pinchwheels
   - Strange noise in motor or Drive Roller
   - Upper paper guide is out of place or broken
   - Out-Of-Paper Sensor is badly positioned
2. If any defective or broken part is found, it should be replaced.

Printer displays out of paper when paper is available

Remote troubleshooting

- Check if the customer has followed the paper troubleshooting included in the user's guide. If not, help him or her to do it.
- If the problem persists, ask the customer to unload paper, restart the printer and ask to load paper again. If everything is OK, it is likely the printer has an old firmware version, ask the customer to do an firmware upgrade.
- If there is a problem with the printer is likely that the customer cannot load paper after restarting the printer, in this case see Paper cannot be loaded successfully on page 61.

Onsite troubleshooting

The service engineer should first follow the paper troubleshooting in the user's guide, and also the instructions in this manual given to the customer by the call agent to double-check that the troubleshooting has been done correctly. In most cases the problem can be solved by following these instructions. If the problem persists:

1. Remove the covers and check that the OOP sensor is well placed and the flag is not broken.
2. Check the cables to see whether any of them is broken or disconnected (especially the OOPS cable and the cable in the Bundle Board).
3. If everything is OK, replace the Bundle Board (see Bundle Board on page 297).
4. If the problem persists, replace the Main PCA (see Main PCA on page 205).

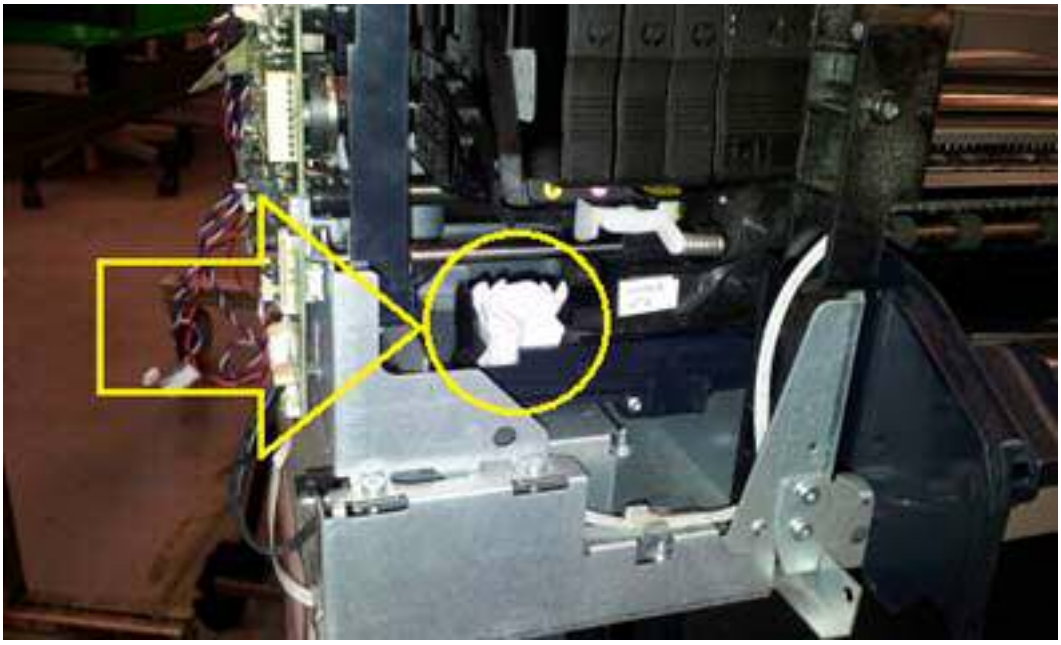
Cutter does not cut, or does not cut well

Remote troubleshooting

- Check that the customer has followed the paper troubleshooting included in the user's guide. If not, help him or her to do it.
- If the problem persists, ask the customer to check whether the cutter has been disabled in the front panel and/or in the driver.
- Ask to try a different paper, and try to cut it using Form Fit and Cut from the front panel menu.

http://www.justmanuals.com

- If is still not cutting, ask the customer to check that the cutter is engaged and that it moves together with the Carriage. If the cutter is not activated, ask the customer to open the Ink Cartridge Cover and check whether there is a strip of paper in the parking position causing the cutter not to activate.

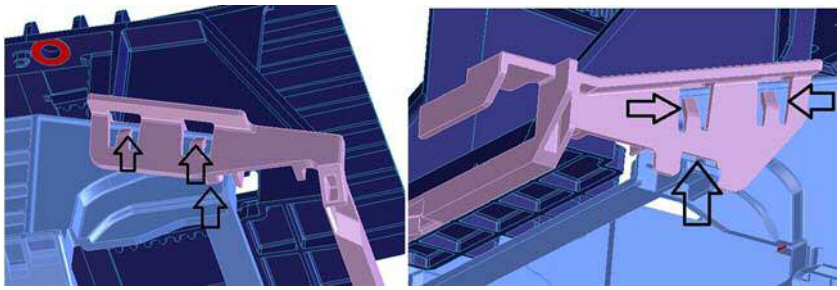


- If this does not solve the issue, arrange a service engineer visit to replace the cutter assembly.

Onsite troubleshooting

The service engineer should first follow the paper troubleshooting in the user's guide, and also the instructions in this manual given to the customer by the call agent, to double-check that the troubleshooting has been done correctly. In most cases the problem can be solved by following these instructions. However, if the problem persists, try the following steps:

1. If the cutter is not engaged, check that the cutter bridge is well assembled.



2. If the cutter bridge is well assembled and the cutter is not activated while cutting, the cutter assembly should be changed..
3. Check whether there is noise due to high friction during the cut. If this occurs, the cutter assembly should be changed. The high friction could be due to one of the following circumstances:
   a. Worn-out blades as a consequence of many cuts.
   b. Dirty blades. Likely to hold some sticky glue after cutting vinyl.

c. Hard points in blades. Whenever the cutter has suffered an impact, such as falling onto the floor, the blades mark themselves creating a hard point.

d. Excessive friction in the mechanism of the cutter.

Paper has jammed

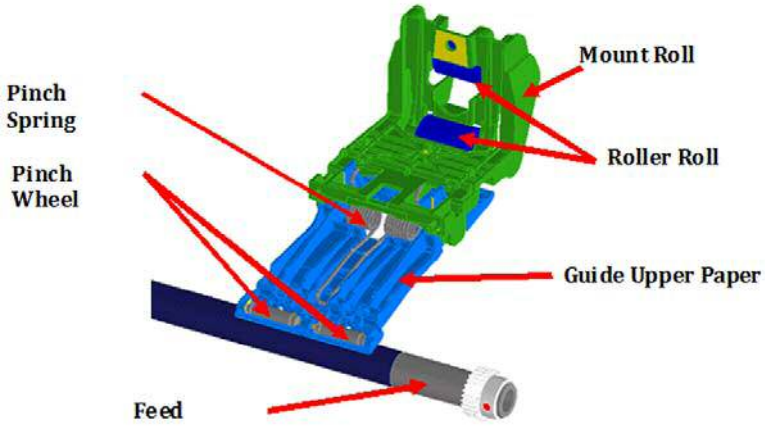
Remote troubleshooting

- Check that the customer has followed the paper troubleshooting procedures described in the user's guide. If not, help him or her to do it.
- If the jam occurs with roll or single sheet, check with the customer that the output tray is closed. The printer does not allow printing or loading roll or single sheet with the Output Tray open (a message appears on the Front Panel). However if this is the case it is likely that the Output Tray Sensor is broken. Ask the customer to run the Output Tray Sensor diagnostics (see 2.6 Output Tray Sensor on page 111). If the diagnostics fail, arrange a service engineer visit to replace the Output Tray Sensor (see Output Tray Sensor Assembly on page 286).
- If the jam occurs with roll, and the output tray is closed, check with the customer whether the jam occurs at the beginning of the print, because due to the paper curling the paper is stopped into the Output Tray (does not fall into the basket), provoking a paper jam. If this is the case, check with the customer whether the ribs in the Output Tray have risen or not. If these ribs are not up while printing from roll, it can cause paper jams at the beginning of the plot. If this is the case, arrange a service engineer visit to replace the Output Tray.
- If the problem persists it is probably a mechanical problem that should be diagnosed by a service engineer. Arrange a service engineer visit to diagnose the issue.

Onsite troubleshooting

The service engineer should first follow the paper troubleshooting in the user's guide, and also the instructions in this manual given to the customer by the call agent, to double-check that the troubleshooting has been done correctly. In most cases the problem can be solved by following these instructions. However, if the problem persists, remove the covers and try the following steps:

1. Check that all the Pinchwheels are all present and well assembled; check also that all the pinchwheel springs are in place.



2. Check that the starwheel rail is correct.
3. Check that the spindle is not broken or inserted incorrectly, and that the spindle gear is OK.

http://www.justmanuals.com

Communication troubleshooting

Please follow these suggestions to diagnose remote communication issues.

General troubleshooting

1. Check the following symptoms:
   - The front-panel display does not show the **Printing** message when an image has been sent to the printer.
   - The computer displays an error message instead of printing.
   - The computer or printer hangs (stays idle), while communication is taking place.
   - The printed output shows random or inexplicable errors (misplaced lines, partial graphics, etc.).
2. To solve a communication problem:
   - Ensure that the correct printer has been selected in the application.
   - Ensure that the printer works correctly when printing from other applications.
   - Remember that very large prints may take some time to receive, process, and print.
   - If the printer is connected to a network, check the printer connectivity status: the printer should have an IP address and it should match the IP address specified in the printing computer. If the addresses do not match, then configure it correctly; if the issue persists, check the network configuration or try connecting to the printer by USB cable.
   - Try another interface cable.
   - If the printer is connected by USB cable, try disconnecting and reconnecting the USB cable. Also try using a different USB port on the computer.
   - If the printer is connected to a wireless network, try moving the printer closer to the wireless router. Alternatively, try connecting the printer by network or USB cable.
   - If the printer is connected to a wireless network, you can request a diagnostic report from the front panel: press , then **Settings** > **Print Wireless Network Test**. Alternatively, try moving the printer closer to the wireless router, or try connecting the printer by wired network or USB cable.

   When a network device automatically configures itself by receiving an IP address from the DHCP service, this IP address may change from the last time the device is powered off to the next time it is powered on, which may lead to the device being shown as "offline" when driver port settings are configured with the original IP address. There are at least three possible ways to avoid this:
   - Increase the lease time of the DHCP server device.
   - Set a fixed IP address for the printer so that it will not change by DHCP.
   - Configure the printer and driver to refer to the hostname instead of the numeric IP address.

Wired network issues

▲ If the HP software provided with the printer cannot be installed, check that:

- All cable connections to the computer and the printer are secure.
- The network is operational and the network hub is turned on.
- All applications, including virus protection programs, spyware protection programs, and firewalls, are closed or disabled for computers running Windows.
- The printer is installed on the same subnet as the computers that use the printer.

If the installation program cannot discover the printer, print the Network Configuration Page, and enter the IP address manually in the installation program.

Although assigning a static address to the printer is not recommended, some installation problems (such as a conflict with a personal firewall) may be resolved by doing so.

Network port created does not match printer IP address (Windows)

If the computer is running Windows, make sure that the network ports created in the printer driver match the printer's IP address.

1. Print the printer's Network Configuration Page.
2. From **Start** > **Settings**, and then click **Printers** or **Printers and Faxes**. - or - From **Start** > **Front Panel**, and then double-click **Printers**.
3. Right-click the printer icon, click **Properties**, and then click the **Ports** tab.
4. Select the TCP/IP port for the printer, and then click **Configure Port**.
5. Compare the IP address listed in the dialog box and make sure it matches the IP address listed on the Network Configuration Page. If the IP addresses are different, change the IP address in the dialog box to match the address on the Network Configuration Page..
6. Click OK twice to save the settings and close the dialog boxes.

Wireless network issues

1. Make sure the wireless (802.11) light at the top left of the front panel is turned on .

   If the blue light is not lit, the wireless capabilities may not have been turned on. To turn on wireless, press , then **Settings** > **Wireless** > **On**.
2. Make sure that an Ethernet cable has not been connected to the printer. Connecting an Ethernet cable turns off the printer's wireless capabilities.
3. Restart components of the wireless network.

   Turn off the router and the printer, and then turn them back on in this order: the router first, and then the printer. Then run the Wireless Setup wizard in the front panel and select your network. If you still are unable to connect, turn off the router, printer, and computer. Sometimes, turning off the power and then turning it back on recovers a network communication issue.

http://www.justmanuals.com

4. Run the Wireless Network Test.

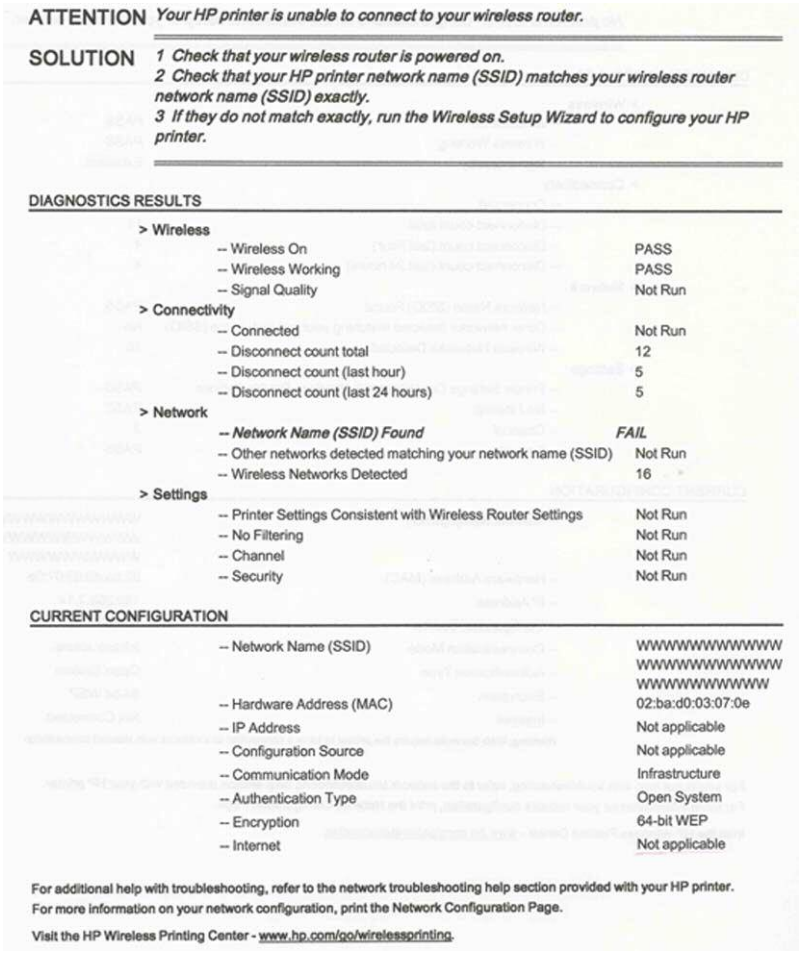
   For wireless networking issues, run the Wireless Network Test. To print a Wireless Network Test page, press , then **Settings** > **Print Wireless Network Test**. If a problem is detected, the printed test report includes recommendations that could help to solve the problem.

5. If required, print the Network Configuration Page to check deep network status information.

Wireless Network Troubleshooting Report

1. Print the Wireless Network Troubleshooting Report (WNTR). From the front panel: press , then **Settings** > **Print Wireless Network Test**.

   This report consists of a top-level assessment of whether any wireless connection problems exist between the printer (STA) and the home network's wireless router, followed by more detailed sections showing the result of various diagnostic tests as well as a configuration summary.



ATTENTION *Your HP printer is unable to connect to your wireless router.*

SOLUTION
1 Check that your wireless router is powered on.
2 Check that your HP printer network name (SSID) matches your wireless router network name (SSID) exactly.
3 If they do not match exactly, run the Wireless Setup Wizard to configure your HP printer.

DIAGNOSTICS RESULTS

> Wireless	
-- Wireless On	PASS
-- Wireless Working	PASS
-- Signal Quality	Not Run
> Connectivity	
-- Connected	Not Run
-- Disconnect count total	12
-- Disconnect count (last hour)	5
-- Disconnect count (last 24 hours)	5
> Network	
-- Network Name (SSID) Found	*FAIL*
-- Other networks detected matching your network name (SSID)	Not Run
-- Wireless Networks Detected	16
> Settings	
-- Printer Settings Consistent with Wireless Router Settings	Not Run
-- No Filtering	Not Run
-- Channel	Not Run
-- Security	Not Run

CURRENT CONFIGURATION

-- Network Name (SSID)	WWWWWWWWWW WWWWWWWWWW WWWWWWWWW
-- Hardware Address (MAC)	02:ba:d0:03:07:0e
-- IP Address	Not applicable
-- Configuration Source	Not applicable
-- Communication Mode	Infrastructure
-- Authentication Type	Open System
-- Encryption	64-bit WEP
-- Internet	Not applicable

For additional help with troubleshooting, refer to the network troubleshooting help section provided with your HP printer.
For more information on your network configuration, print the Network Configuration Page.
Visit the HP Wireless Printing Center - www.hp.com/go/wirelessprinting.

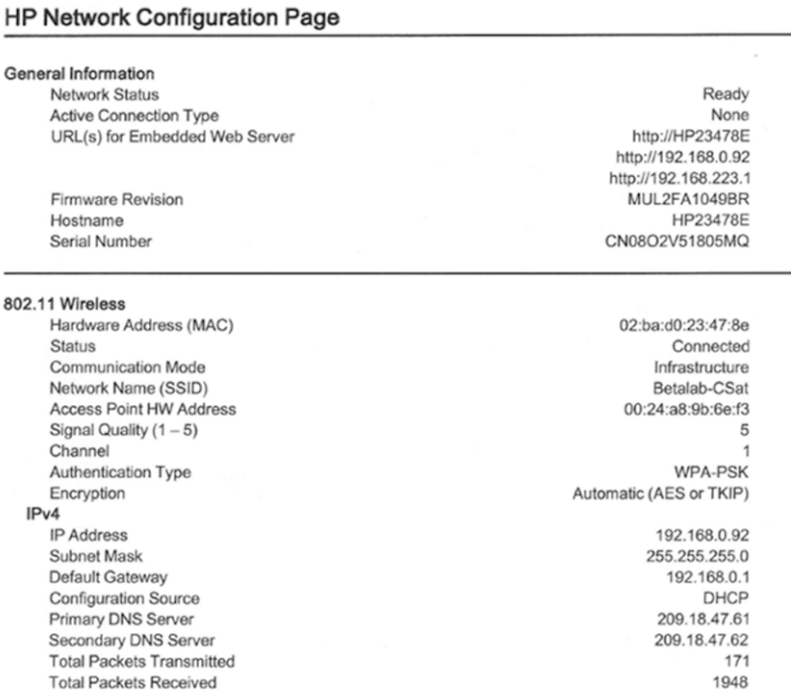
   For more information about the contents of the Wireless Network Troubleshooting Report, see Wireless troubleshooting report error cases on page 340. There is only one situation that requires on-site repair: when the Wireless PCA is defective. To replace the Wireless PCA, you must replace the Main PCA; see Main PCA on page 205.

2. If you are not using a unique network name (SSID), then it is possible that the computer could be connected to the wrong network. See How to check whether your computer is connected to your network on page 337.

Network Configuration Page

1. Make sure that the computer's wireless networking has been turned on. For more information, see the documentation that came with the computer.
2. Print the **Network Configuration Page**. From the front panel: press , then **Internal Prints** > **User Information Prints** > **Network Configuration Page**.

   This contains important wireless configuration information at a glance for the user and call agents. Detailed configuration and status information is also included, such as MAC address, wireless channel and signal strength, IP settings, Ports/Services status, and a list of wireless networks in range of the printer. The Network Configuration Page contains important details for Wireless Direct including SSID name, IP address and security pass code.



HP Network Configuration Page

General Information	
Network Status	Ready
Active Connection Type	None
URL(s) for Embedded Web Server	http://HP23478E http://192.168.0.92 http://192.168.223.1
Firmware Revision	MUL2FA1049BR
Hostname	HP23478E
Serial Number	CN08O2V51805MQ
802.11 Wireless	
Hardware Address (MAC)	02:ba:d0:23:47:8e
Status	Connected
Communication Mode	Infrastructure
Network Name (SSID)	Betalab-CSat
Access Point HW Address	00:24:a8:9b:6e:f3
Signal Quality (1 – 5)	5
Channel	1
Authentication Type	WPA-PSK
Encryption	Automatic (AES or TKIP)
IPv4	
IP Address	192.168.0.92
Subnet Mask	255.255.255.0
Default Gateway	192.168.0.1
Configuration Source	DHCP
Primary DNS Server	209.18.47.61
Secondary DNS Server	209.18.47.62
Total Packets Transmitted	171
Total Packets Received	1948

http://www.justmanuals.com

Ink-supplies troubleshooting

Ink cartridges

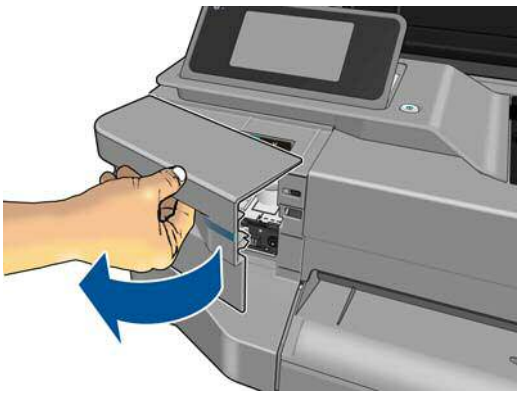
Table 2-1 Available Ink Cartridges

Ink cartridge	Part number
HP 711 38 ml Black Ink Cartridge	CZ129A
HP 711 29 ml Cyan Ink Cartridge	CZ130A
HP 711 29 ml Magenta Ink Cartridge	CZ131A
HP 711 29 ml Yellow Ink Cartridge	CZ132A
HP 711 80 ml Black Ink Cartridge	CZ133A

All ink cartridges are compatible with the T120 and the T520.

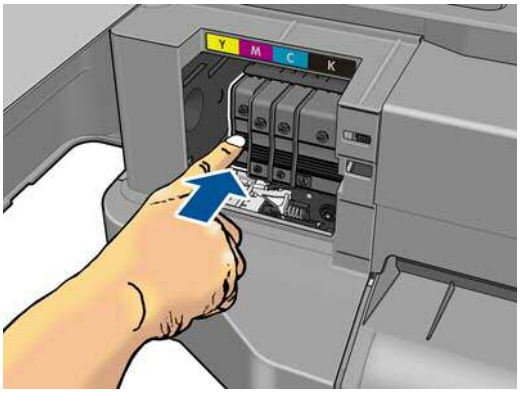
Replace an ink cartridge

1. Make sure the printer is turned on.
2. If your printer is on a stand, make sure the printer wheels are locked (the brake lever is pressed down) to prevent the printer from moving.
3. Open the ink cartridge cover on the left-hand side of the printer, and wait until the Carriage stops moving.

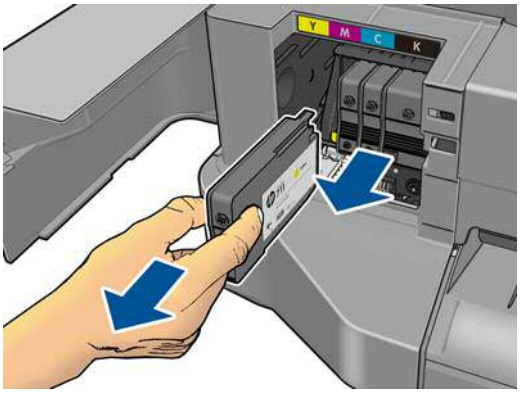


4. Wait until the Carriage stops moving.

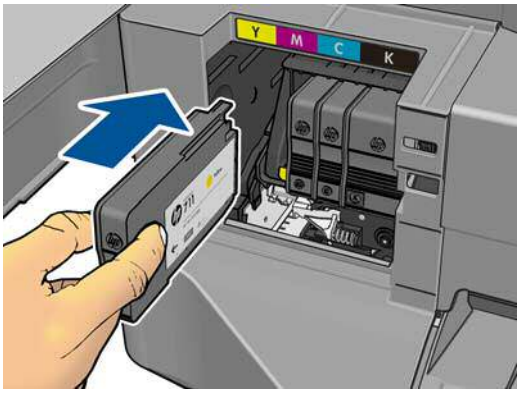
5. Press the ink cartridge to unlock it.



6. Remove the ink cartridge.

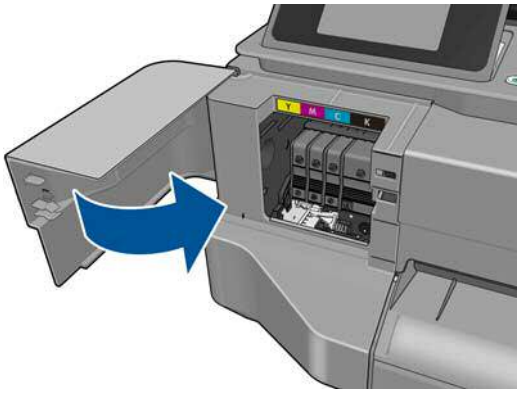


7. Insert the new ink cartridge. Make sure that you insert the ink cartridge into the slot that has the same colored letter as the cartridge you are installing.



http://www.justmanuals.com

8. Close the ink cartridge cover.



Ink cartridge status

To view the ink levels of your ink cartridges, press on the front panel.

For more information, press **More**.

You can also get this information from the HP Utility.

- In the HP Utility for Windows, go to the **Supplies** tab to see each cartridge's status.
- In the HP Utility for Mac OS, select **Supplies Status** in the Information group.

Ink cartridge status messages

OK	The Ink Cartridge is operating correctly and no action is required.
Missing	There is no Ink Cartridge present, or it is not correctly connected to the printer
Low	The **Low** message is an early warning sign and it is advisable that new supplies should be obtained of that particular color. The amount of ink remaining in the Ink Cartridge depends on its capacity, but there is approximately 20% of ink available for the user.
Out of Ink	The printer will stop and will not be able to continue printing until a new Ink Cartridge has been installed. If this occurs halfway through printing an image, you should check the quality of this image, as stopping in mid-print can affect the print. It is recommended to reprint the image once a new Ink Cartridge has been installed.
Not genuine HP	The cartridge is not a genuine HP cartridge.
Wrong slot	The cartridge has been inserted into the wrong slot.
Incompatible	The cartridge is incompatible with this printer.

Printhead

The printhead is extremely durable and does not need to be replaced every time an Ink Cartridge is replaced. It is independent of the Ink Cartridges and will continue giving excellent results even if the Ink Cartridges are low on ink.

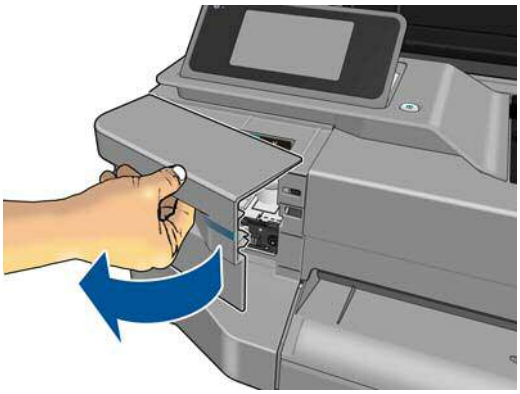
Table 2-2 Available printheads

	Part number
HP 711 Printhead Replacement Kit	C1Q10A

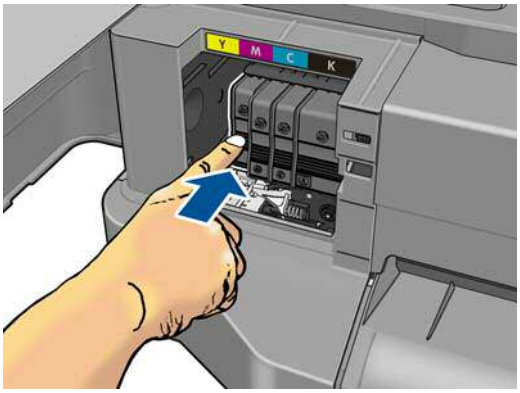
Replace the printhead

The printhead is a Customer Self Replaceable (CSR) part.

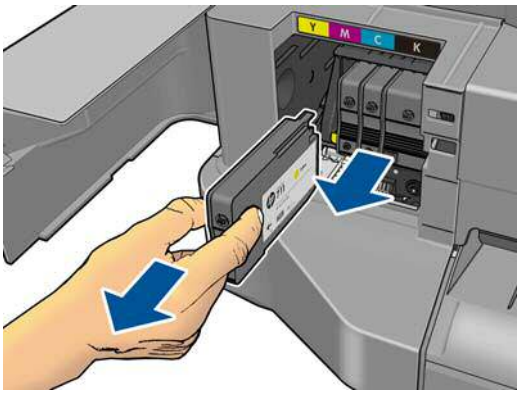
1. Make sure the printer is turned on.
2. If your printer is on a stand, make sure the printer wheels are locked (the brake lever is pressed down) to prevent the printer from moving.
3. From the front panel, press , then **Image quality maintenance** > **Replace printhead**.
4. Open the Ink Cartridge Cover.



5. Wait until the Carriage stops moving.
6. Press each ink cartridge to unlock it.

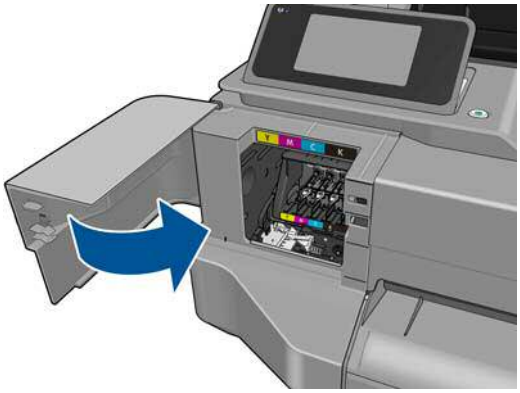


7. Remove each ink cartridge.



http://www.justmanuals.com

8. Close the Ink Cartridge Cover.

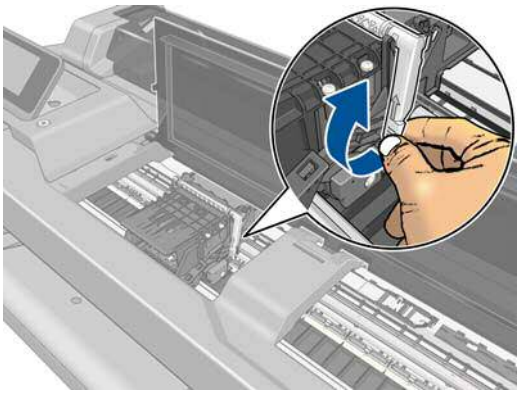


9. Press **Next** on the front panel.

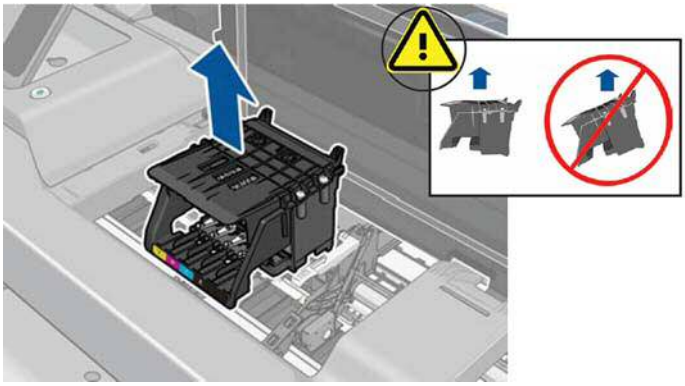
10. Open the Top Cover.



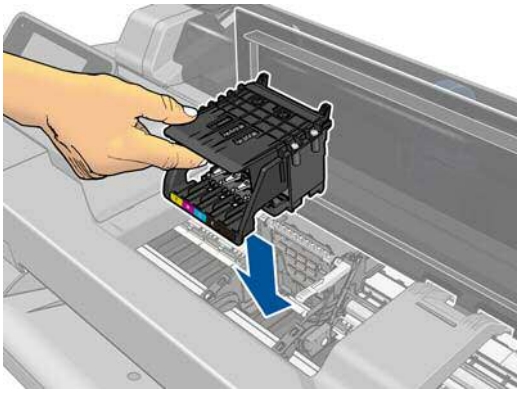
11. Raise the Carriage Lever.



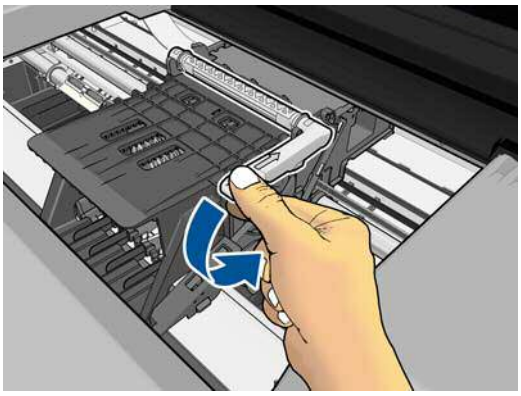
12. Remove the printhead, keeping it vertical to avoid spilling ink onto the connections.



13. Insert the new printhead.



14. Lower the Carriage Lever.



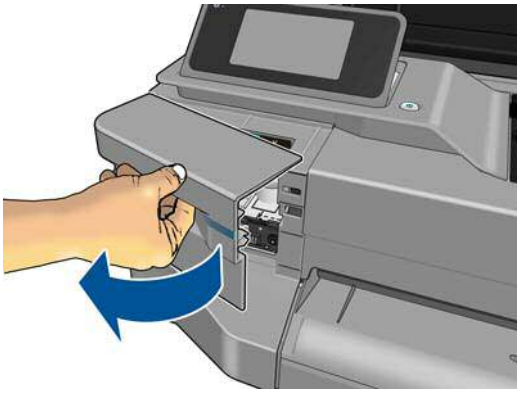
http://www.justmanuals.com

15. Close the Top Cover.



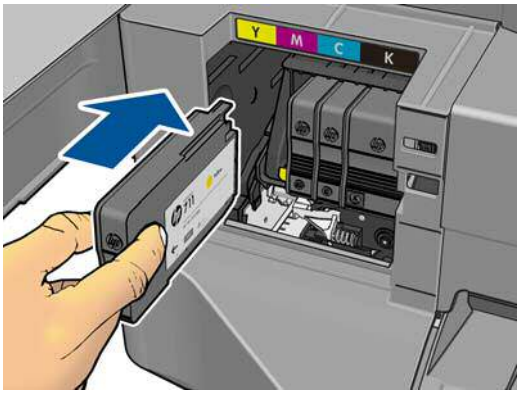
16. Press **Next** on the front panel.

17. Open the Ink Cartridge Cover.

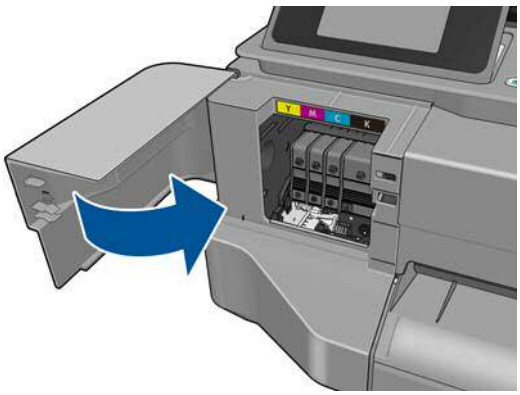


18. Insert the ink cartridges. Make sure that you insert each ink cartridge into the slot that has the same colored letter as the cartridge you are installing.

CAUTION: If the printhead is new, install new ink cartridges. New ink cartridges are required for successful printhead replacement.



19. Close the Ink Cartridge Cover.



20. Press **Done** on the front panel. The front panel recommends a printhead alignment..

Reseat the printhead

In some cases, printhead problems may be resolved by reseating the printhead without replacing it.

To do this, follow the printhead replacement procedure (see Replace the printhead on page 73), but without using a new printhead or new ink cartridges: just reinsert the old ones.

Clean the printhead

If your print is streaked or has incorrect or missing colors, the printhead may need to be cleaned.

There are three stages of cleaning. Each stage lasts about two minutes, uses one sheet of paper, and uses an increasing amount of ink. After each stage, review the quality of the printed page. You should initiate the next phase of cleaning only if the print quality is poor.

If print quality still seems poor after you complete all stages of cleaning, try aligning the printhead.

NOTE: Cleaning uses ink, so clean the printhead only when necessary.

NOTE: Failing to turn off the printer correctly can cause print-quality problems.

Clean the printhead from the front panel

1. Make sure there is paper in the Multi-Sheet Tray or a roll is loaded.
2. Go to the front panel and press , then **Image Quality Maintenance** > **Clean printhead**.

Clean the printhead from the Embedded Web Server

1. Make sure there is paper in the Multi-Sheet Tray or a roll is loaded.
2. In the **Tools** tab of the Embedded Web Server, select **Print Quality Toolbox** > **Clean Printhead**, and follow the instructions on the screen.

http://www.justmanuals.com

Clean the printhead from the HP Utility

1. Make sure there is paper in the Multi-Sheet Tray or a roll is loaded.
2. **Windows:** In the **Support** tab of the HP Utility, select **Printhead Cleaning**, and follow the instructions on the screen.
3. **Mac OS:** In the **Information and Support** tab of the HP Utility, select **Clean Printhead**, and follow the instructions on the screen.

Align the printhead

Precise printhead alignment is essential for accurate colors, smooth color transitions, and sharp edges in graphical elements. Your printer has an automatic printhead alignment process which runs whenever a printhead has been accessed or replaced.

You may need to align the printhead after a paper jam or if you are experiencing problems with color accuracy.

To align the printhead, ensure that paper is loaded, then press , then **Image Quality Maintenance** > **Align printhead**.

⚠ **CAUTION:** Do not use transparent or semi-transparent paper to align the printhead.

Printhead status messages

OK	The printhead is operating correctly and no action is required.
Missing	There is no printhead present, or it is not properly connected to the printer.
Reseat	You are recommended to start the printhead removal process from the Front Panel, but instead of removing the printhead, simply press the OK button on the Front Panel.
Replace	You are recommended to remove the printhead and then reinsert it; if that fails, clean the electrical connections; if that fails, replace the printhead with a new printhead.
Replacement incomplete	A printhead replacement process has not completed successfully, relaunch the replacement process and let it finish completely (it is not necessary to change the printhead).

Solving ink-supply problems

Most of the problems that you may encounter when working with the ink supplies are solved with guidance from the Front Panel. A full list of Front Panel messages is supplied in the user's guide.

You cannot insert the Ink Cartridge

1. Ensure that you have the correct HP no.711 Ink Cartridge.
2. Check that the colored label on the cartridge is the same color as the label on the slot.
3. Check that the cartridge is correctly oriented, with the letter or letters marking the cartridge label right-side up and readable.

⚠ **CAUTION:** Never clean inside the Ink Cartridge slots as this can cause damage to the printer.

You cannot insert the printhead

1. Ensure that you have the correct HP no. 711 Printhead.
2. Ensure that the printhead is in the correct orientation.
3. Check that you have correctly latched the printhead.

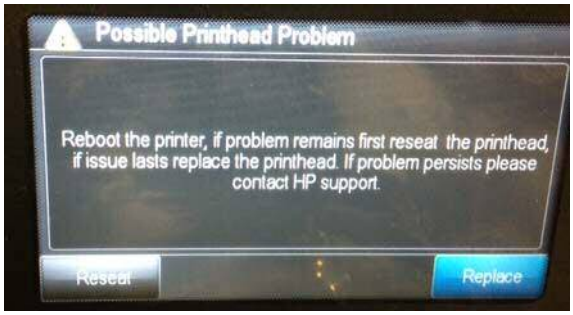
The Front Panel says to reset or replace a printhead

1. From the Front Panel, turn the power off then on.
2. Check the Front Panel display message, if it shows the ready message, the printer is ready to print. If the problem remains continue with the next step.
3. Remove the printhead using the correct procedure. It is important that the ink cartridges are removed before removing the printhead, this is in order to avoid damaging the printhead or contaminating the Carriage contacts with ink.
4. Clean the electrical connections on the backside of the printhead with a lint-free cloth. You can carefully use a mild rubbing alcohol if moisture is needed to remove residue. Do not use water.

   This is a delicate process and may damage the printhead. Do not touch the nozzles on the bottom side of the printhead, especially not with alcohol.
5. Reinsert the printhead.
6. Check the Front Panel display message. If the problem remains, try a new printhead.

Ink system hardware troubleshooting

A potential ink system hardware failure can be reported to the user in the following way:


Possible Printhead Problem
Reboot the printer, if problem remains first reseat the printhead, if issue lasts replace the printhead. If problem persists please contact HP support.
Reseat
Replace

The printer is unable to determine whether the error is caused by a real hardware failure or which part may be failing (possible candidates: ink cartridges, Prime Pump, Carriage Assembly, Trailing Cable).

Follow these steps to check which parts to repair to solve the problem:

1. Perhaps the printer will recover automatically. Restart the printer and print a test page such as the print-quality diagnostic report (see General print-quality troubleshooting on page 83). If the error persists, proceed to the next step.
2. Perform a diagnostic test of the pump subsystem (see 2.8 Pump on page 113). If it tests OK, continue with the next step; otherwise, replace the Prime Pump (see Prime Pump on page 233). Send an onsite engineer if necessary.
3. Restart the printer. When the printer is ready, start a printhead replacement (see Replace the printhead on page 73) and follow the first two steps shown on the Front Panel to remove the ink cartridges and the printhead.

http://www.justmanuals.com

4. Inspect both the ink cartridges and the Carriage, looking for evidence of ink leaks. If you find none, move to step 5. If an ink cartridge is leaking, please order new ones for the customer and do the following:

   a. Clean the electrical contacts in the Carriage slot inside the printer with a clean, dry, soft, lint-free cloth; slide the cloth up and down vertically.

   b. Put the printhead back into the Carriage (see Replace the printhead on page 73).

   c. Insert a set of non-leaky ink cartridges.

   d. Print a test page.

5. If there are no ink leaks, replace the Carriage Assembly, see Carriage and Belt on page 236.

Printhead troubleshooting

A printhead hardware failure can be reported to the user in the following ways:

A. The printhead appears to be missing, not detected, or incorrectly installed

- Press the "Show me…" button appearing on the screen to launch the replacement/reseat wizard process.

B. System error 27:10 is displayed

1. Turn the printer off.
2. Open the Top Cover.
3. Manually move the Carriage up to the ink replacement position.
4. Open the Ink Cartridge Cover and remove the supplies (if present).
5. Close the Ink Cartridge Cover.
6. Move the Carriage so that you can access the printhead.
7. Replace / Reseat the printhead (ensure that the Carriage lifter is lowered once the printhead assembly has been reinserted)
8. Close the Top Cover.
9. Restart the printer.
10. Re-insert the supplies when prompted by the front panel.
11. If the error persists, the call agent should ship a new printhead assembly.

C. There is a problem with the printer or ink system. Turn printer off, then on. If the problem persists, contact HP.

In addition to this a 27:10 error appears on the Error History (inside the Support Menu)

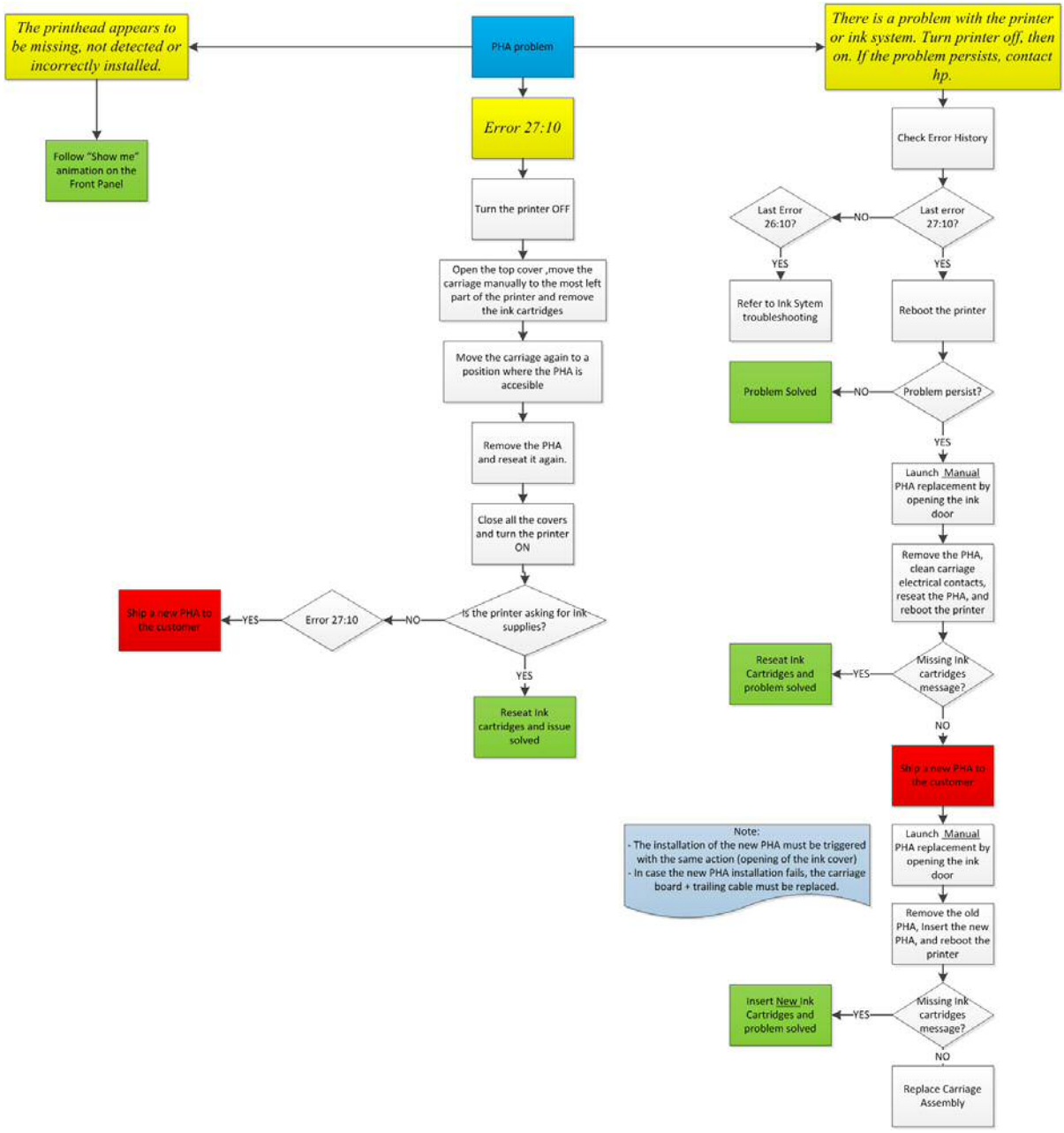
The printer is unable to determine whether the error is caused by a real hardware failure and which might be the failing part. Possible candidates: Printhead, Carriage Board, Trailing Cable.

1. Turn the printer off and on again.
2. Wait until the Carriage stops moving, then open the ink cartridge cover.

3. After hearing the audio alert, remove the ink cartridges, see Replace an ink cartridge on page 70.
4. Clean the electrical contacts in the Carriage slot inside the printer with a clean, dry, soft, and lint-free cloth; ensure that this is done by sliding the cloth vertically.
5. Reinsert the printhead assembly (ensure that the Carriage Lifter is properly lowered once the assembly has been reinserted).
6. Close the Top Cover.
7. Move the Carriage to a position on the platen where you can access the printhead.
8. Replace / Reseat the printhead (ensure that the Carriage Lifter is lowered once the printhead assembly has been reinserted).
9. Close the Top Cover.
10. Restart the printer.
11. Re-insert the supplies when prompted by the front panel.
12. The printer should show a “missing cartridges” message: open the Ink Cartridge Cover to reinsert the supplies.
13. If the problem persists, the printhead must be replaced (a printhead replacement kit must be provided to the user).
14. If the problem persists, the Carriage assembly must be replaced, see Carriage and Belt on page 236.

http://www.justmanuals.com

Printhead troubleshooting flowchart


PHA problem
The printhead appears to be missing, not detected or incorrectly installed.
Follow "Show me" animation on the Front Panel
There is a problem with the printer or ink system. Turn printer off, then on. If the problem persists, contact hp.
Error 27:10
Turn the printer OFF
Open the top cover ,move the carriage manually to the most left part of the printer and remove the ink cartridges
Move the carriage again to a position where the PHA is accesible
Remove the PHA and reseat it again.
Close all the covers and turn the printer ON
Is the printer asking for Ink supplies?
NO
Error 27:10
YES
Ship a new PHA to the customer
YES
Reseat Ink cartridges and issue solved
Check Error History
Last error 27:10?
NO
Last Error 26:10?
YES
Refer to Ink Sytem troubleshooting
YES
Reboot the printer
Problem persist?
NO
Problem Solved
YES
Launch Manual PHA replacement by opening the ink door
Remove the PHA, clean carriage electrical contacts, reseat the PHA, and reboot the printer
Missing Ink cartridges message?
YES
Reseat Ink Cartridges and problem solved
NO
Ship a new PHA to the customer
Launch Manual PHA replacement by opening the ink door
Remove the old PHA, Insert the new PHA, and reboot the printer
Missing Ink cartridges message?
YES
Insert New Ink Cartridges and problem solved
NO
Replace Carriage Assembly
Note:
- The installation of the new PHA must be triggered with the same action (opening of the ink cover)
- In case the new PHA installation fails, the carriage board + trailing cable must be replaced.

Print-quality troubleshooting

General print-quality troubleshooting

These procedures should help with streaked or faded prints, prints without black or other colors, prints with blurred or fuzzy text, prints with ink streaks or smears, and many other problems.

Try the following solutions in the order presented in order to resolve the common issues described above. When one of the solutions resolves the issue, there is no need to continue troubleshooting.

Use genuine HP ink cartridges

- HP recommends that you use genuine HP ink cartridges. HP cannot guarantee the quality or reliability of non-HP cartridges. If you are not using genuine HP ink cartridges, the following solutions might not resolve your print-quality issue.

Check the paper

- Make sure that the paper is appropriate for the print job.

Check the print settings

- **Windows:** Open the Windows driver and go to the **Paper/Quality** tab. Adjust **Print Quality, Document Size**, and **Margins/Layout**.

  Mac OS: Open the Mac OS Print dialog and go to the **Paper/Quality** tab. **Adjust Quality Options, Paper Size, Format**, and **Margins/Layou**t.

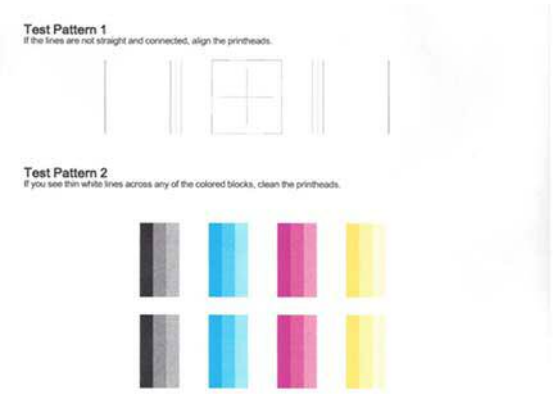
Print and evaluate a print-quality diagnostic report and troubleshoot defects

Use the following procedure to print, and then evaluate a print-quality diagnostic report.

1. Print a print-quality diagnostic page.
   a. Make sure there is plain white, letter-size paper loaded in the sheet feeder at the back of the printer.
   b. Choose the Multi-Sheet Tray (multi-sheet or single-sheet) from the front panel.
   c. Press on the printer front panel.

http://www.justmanuals.com

d. Select **Image Quality Maintenance** > **Print diagnostic image**. The print-quality diagnostic page prints.


Test Pattern 1
If the lines are not straight and connected, align the printheads.
Test Pattern 2
If you see thin white lines across any of the colored blocks, clean the printheads.

2. If the lines in Test Pattern 1 are not straight and connected, follow these steps to align the printer:

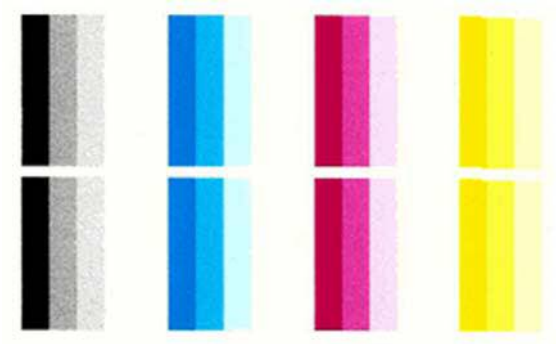
   a. Make sure there is plain white, letter-size paper loaded in the sheet feeder on the back of the printer.

   b. Press on the printer front panel.

   c. Select **Image Quality Maintenance** > **Align Printhead**. The printhead alignment procedure will begin.

   d. At the end of the process a page prints, which may be discarded.

3. Examine the Test Pattern 2. Shown here is a good example of the test pattern.



If any of the colored blocks in Test Pattern 2 show white lines, or are faded or missing completely, follow these steps to clean the printhead.

   a. Make sure there is plain white, letter-size paper loaded in the sheet feeder on the back of the printer.

   b. Press on the printer front panel.

   c. Select **Image Quality Maintenance** > **Clean Printhead**. The printhead cleaning process will begin.

   d. At the end of the process a page prints. Examine that page to see if more cleaning is required.

e. If there are defects on the page that prints after cleaning, try cleaning the printhead by pressing the Yes button on the Front Panel for second level cleaning. Repeat the cleaning for the third level cleaning if it is still not resolved.


Clean Printhead
Check the print quality of the printed page. If the print quality is unsatisfactory, try the second-level cleaning.
Do you want to proceed to the next level?
Yes
No


Clean Printhead
Check the print quality of the printed page. If the print quality is still unsatisfactory, try the third-level cleaning.
Do you want to proceed to the next level?
Yes
No

f. If the problem is still not resolved after third-level cleaning, proceed to the next step (check print quality), before replacing the printhead.


Clean Printhead
Check the print quality of the printed page. If the print quality is still unsatisfactory, try replacing the printhead.
OK

NOTE: To avoid problems that require printhead cleaning, always use the Power button to turn the printer off. Always replace any missing cartridges as soon as possible to avoid print-quality issues and possible extra ink usage or damage to the ink system. Never turn off the printer when the ink cartridges are missing.

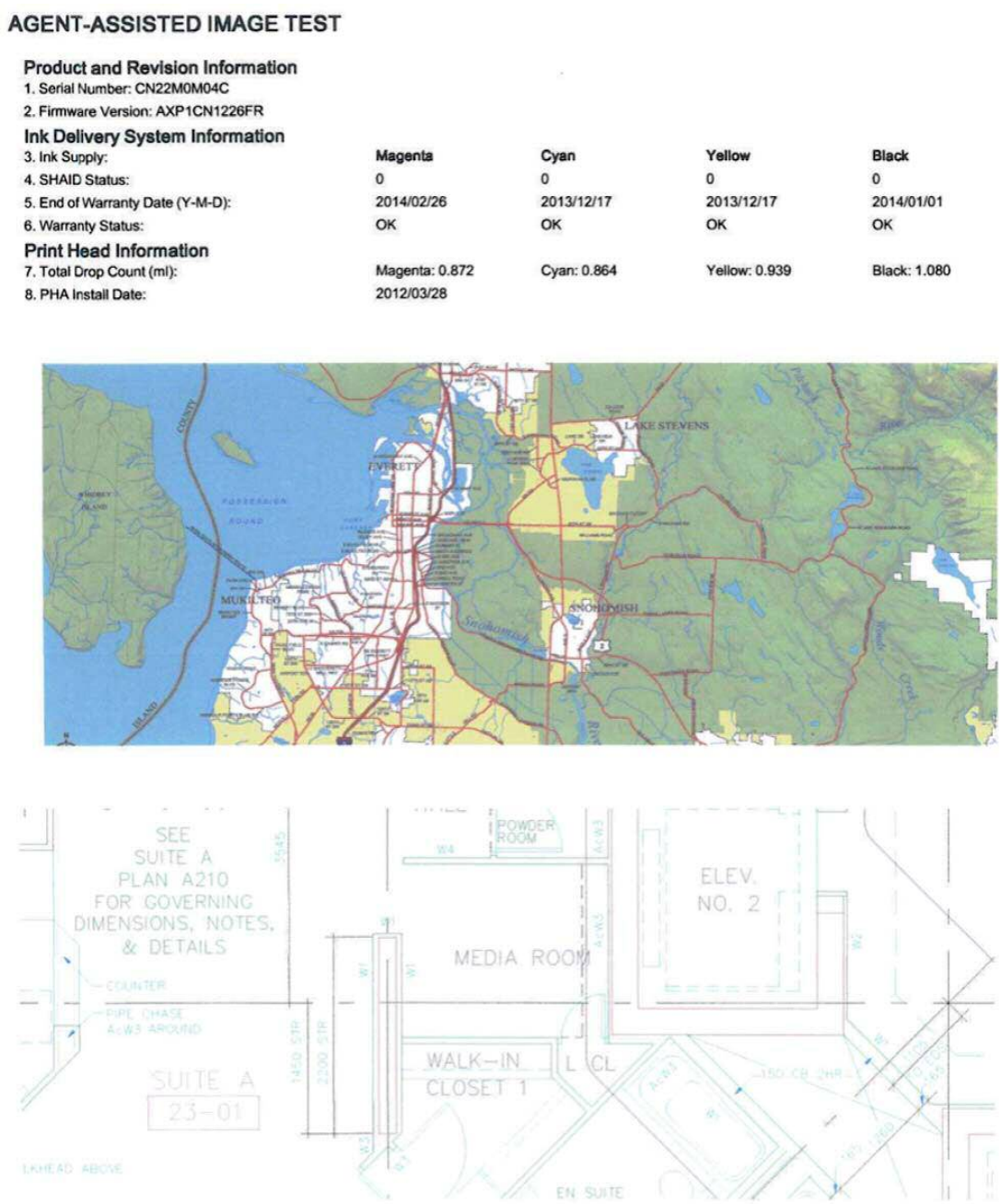
Check print quality

If you see no defects on the print-quality diagnostic report, you can double-check the print quality with the Diagnostic Image.

a. Make sure there is plain white, letter-size paper loaded in the sheet feeder on the back of the printer.

http://www.justmanuals.com

b. Press four times on the Back Key. The Support Menu will appear. Go to **4. Reports** > **4.4 Agents Assisted Image Test**.



AGENT-ASSISTED IMAGE TEST

Product and Revision Information

1. Serial Number: CN22M0M04C
2. Firmware Version: AXP1CN1226FR

Ink Delivery System Information

	Magenta	Cyan	Yellow	Black
3. Ink Supply:				
4. SHAID Status:	0	0	0	0
5. End of Warranty Date (Y-M-D):	2014/02/26	2013/12/17	2013/12/17	2014/01/01
6. Warranty Status:	OK	OK	OK	OK

Print Head Information

7. Total Drop Count (ml):	Magenta: 0.872	Cyan: 0.864	Yellow: 0.939	Black: 1.080
8. PHA Install Date:	2012/03/28			

If the Agent Assisted Images both look OK, then the print mechanism and ink supplies are working correctly.

Replace the problem ink cartridge

If none of the preceding steps resolved the issue, replace the cartridge that corresponds to the defect on the Print Quality Diagnostic report. For example, if the magenta color block is streaked and printhead cleaning does not help, replace the magenta cartridge, see Replace an ink cartridge on page 70.

NOTE: Use the Print Quality Diagnostic Page (not the Agent Assisted Image Test) to confirm failure before replacing ink cartridges or the printhead.

Replace the printhead

If you have completed all of the troubleshooting steps and are still experiencing a problem, replace the printhead.

NOTE: Use the Print Quality Diagnostic Page (not the Agent Assisted Image Test) to confirm failure before replacing ink cartridges or the printhead.

Service the printer

If the steps above have not solved the problem, service the printer.

NOTE: Keep a print sample that shows the problem. If the ink cartridges, printhead, or printer is replaced under warranty, the support agent will request the print sample. If the printer is returned to HP, the print sample must be returned with the printer. Place the sample in the output tray when you package your printer for shipping.

Print-quality defects

- Horizontal lines across the image (banding)
- Lines are too thick, too thin or missing
- Lines appear stepped or jagged
- Lines print double or in the wrong colors
- Lines are discontinuous
- Lines are blurred
- Line lengths are inaccurate
- The whole image is blurry or grainy
- The paper is not flat
- The print is scuffed or scratched
- Ink marks on the paper
- Black ink comes off when you touch the print
- Edges of objects are stepped or not sharp
- Edges of objects are darker than expected
- Vertical lines of different colors
- White spots on the print
- Colors are inaccurate
- Colors are fading
- The image is incomplete (clipped at the bottom)
- The image is clipped
- Some objects are missing from the printed image
- A PDF file is clipped or objects are missing

http://www.justmanuals.com

Horizontal lines across the image (banding)

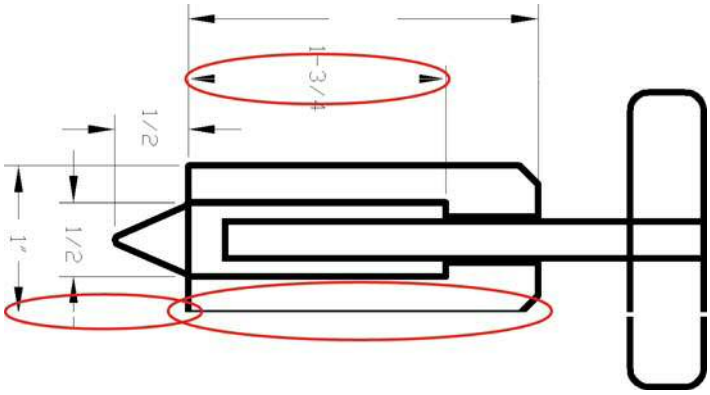
If your printed image suffers from added horizontal lines as shown (the color may vary):



1. Check that the paper type loaded corresponds to the paper type selected in the front panel and in the software.
2. Check that the customer is using appropriate print-quality settings for the purpose. In some cases, you can overcome a print-quality problem merely by selecting a higher print-quality level. For instance, if you have set the Print Quality slider to **Speed**, try setting it to **Quality**.
3. Print the print-quality diagnostic report. See General print-quality troubleshooting on page 83.
4. If the printhead is working correctly, perform paper advance calibration, see the user's guide.

If the problem persists despite all the above actions, contact your customer service representative for further support.

Lines are too thick, too thin or missing



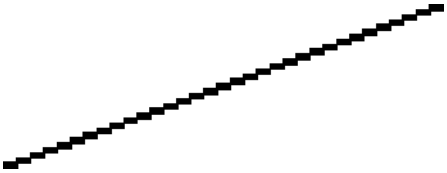
1. Check that the paper type you have loaded corresponds to the paper type selected in the front panel and in your software.
2. Check that you are using appropriate print-quality settings for your purposes. Select the custom print-quality options in the driver dialog, and try turning on the **Maximum detail** option (if available).
3. If the resolution of your image is greater than the printing resolution, you may notice a loss of line quality. You can find the **Max. Application Resolution** option in the driver dialog's **Advanced** tab, under **Document Options** > **Printer Features**.
4. If lines are too thin or missing, print the print-quality diagnostic report. See General print-quality troubleshooting on page 83.

5. If the problem remains, align the printhead. See Align the printhead on page 78.
6. If the problem remains, perform paper advance calibration, see the user's guide.

If the problem persists despite all the above actions, contact your customer service representative for further support.

Lines appear stepped or jagged

If lines in your image appear stepped or jagged when printed:

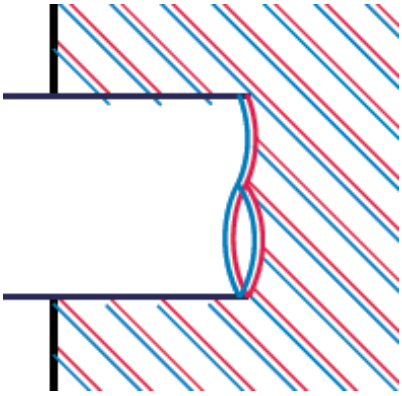


1. The problem may be inherent in the image. Try to improve the image with the application you are using to edit it.
2. Check that you are using appropriate print-quality settings, see the user's guide.
3. Select the custom print-quality options in the driver dialog, and turn on the **Maximum detail** option (if available).

Lines print double or in the wrong colors

This problem can have various visible symptoms:

- Colored lines are printed double, in different colors.



- The borders of colored blocks are wrongly colored.



http://www.justmanuals.com

To correct this kind of problem, align the printhead. See Align the printhead on page 78.

Lines are discontinuous

If your lines are broken in the following way:



1. Check that you are using appropriate print-quality settings, see the user's guide.
2. Align the printhead. See Align the printhead on page 78.

Lines are blurred



Humidity can cause ink to soak into the paper, making the lines blurred and fuzzy. Try the following:

1. Check that your environmental conditions (temperature, humidity) are suitable for high-quality printing
2. Check that the paper type selected in the front panel is the same as the paper type you are using.
3. Try changing to a heavier paper type, such as HP Heavyweight Coated Paper.
4. Select a paper type that is slightly thinner than the paper you have loaded; this will persuade the printer to use less ink. Here are some example paper types in ascending order of thickness: Plain Paper, Coated Paper, Heavyweight Coated Paper.
5. If you are using glossy paper, try changing to a different type of glossy paper.
6. Align the printhead. See Align the printhead on page 78.

Line lengths are inaccurate

If you have measured your printed lines and find that the lengths are not sufficiently accurate for your purposes, you can try to improve line length accuracy in the following ways.

1. Print on HP Matte Film, for which your printer's line length accuracy is specified.

   Polyester film is about ten times more dimensionally stable than paper. However, using film that is thinner or thicker than HP Matte Film will reduce line length accuracy.

2. Set the Print Quality slider to **Quality**.
3. Maintain the room at a steady temperature between 10 and 30°C (50 and 86°F).
4. Load the roll of film and let it rest for five minutes before printing.
5. If you are still not satisfied, try recalibrating the paper advance.

The whole image is blurry or grainy



1. Check that the paper type you have loaded corresponds to the paper type selected in the front panel and in your software.
2. Check that you are printing on the correct side of the paper.
3. Check that you are using appropriate print-quality settings. In some cases, you can overcome a print-quality problem merely by selecting a higher print-quality level. For instance, if you have set the Print Quality slider to **Speed**, try setting it to **Quality**.
4. If the problem remains, align the printhead. See Align the printhead on page 78.
5. If the problem remains, perform paper advance calibration.

If the problem persists despite all the above actions, contact your customer service representative for further support.

The paper is not flat

If the paper does not lie flat when it comes out of the printer, but has shallow waves in it, you are likely to see defects in the printed image, such as vertical stripes. This can happen when you use thin paper that becomes saturated with ink.

http://www.justmanuals.com



1. Check that the paper type you have loaded corresponds to the paper type selected in the front panel and in your software.
2. Try changing to a thicker paper type, such as HP Heavyweight Coated Paper.
3. Select a paper type that is slightly thinner than the paper you have loaded; this will persuade the printer to use less ink. Here are some example paper types in ascending order of thickness: Plain Paper, Coated Paper, Heavyweight Coated Paper.

The print is scuffed or scratched

The black ink pigment can be scuffed or scratched when touched by a finger, a pen or some other object. This is particularly noticeable on coated paper.

Glossy paper may be extremely sensitive to the basket or to anything else that it contacts soon after printing, depending on the amount of ink used and the environmental conditions at the time of printing.

To reduce the risk of scuffs and scratches:

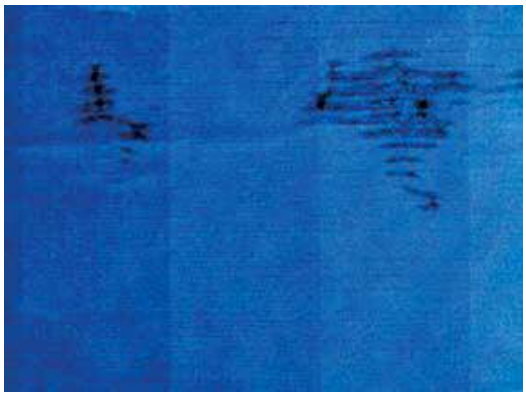
- Handle prints carefully.
- Avoid stacking prints on top of each other.
- Catch your prints as they are cut from the roll and do not let them fall into the basket. Alternatively, leave a sheet of paper in the basket so that freshly printed sheets do not make direct contact with the basket.
- Increase the drying time. At the front panel, press , then **Printer Preferences** > **Print Retrieval** > **Select drying time** > **Extended**.

Ink marks on the paper

This problem can occur for several different reasons.

Horizontal smears on the front of coated paper

If a lot of ink is used on plain or coated paper, the paper absorbs the ink quickly and expands. As the printhead moves over the paper, the printhead may come into contact with the paper and smear the printed image. This problem is normally seen only on cut sheets of paper (not on roll paper).



Whenever you notice this problem, cancel the printing job immediately. Press ✕ and also cancel the job from your computer application. Soaked paper can damage the printhead.

Try the following suggestions to avoid this problem:

1. Check that the paper type you have loaded corresponds to the paper type selected in the front panel and in your software.
2. If using sheet paper, try rotating the sheet 90 degrees. The orientation of the paper fibers may affect performance.
3. Try changing to a thicker paper type, such as HP Heavyweight Coated Paper.
4. Select a paper type that is slightly thinner than the paper you have loaded; this will persuade the printer to use less ink. Here are some example paper types in ascending order of thickness: Plain Paper, Coated Paper, Heavyweight Coated Paper.
5. Try to increase the margins by relocating the image to the center of the page using your software application.

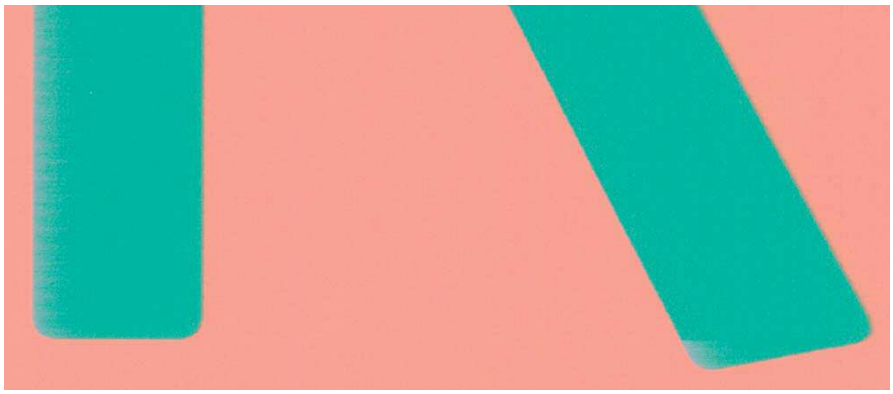
Ink marks on the back of the paper

Clean the platen with a soft cloth. Clean each rib separately.

Black ink comes off when you touch the print

This problem may be caused by printing with matte black ink on glossy paper. The printer will not use matte black ink if it knows that the paper will not retain it. To be sure of avoiding matte black ink, you can select Photo Glossy Paper as the paper type (in the Photo Paper category).

Edges of objects are stepped or not sharp



http://www.justmanuals.com

If edges of objects or lines appear to be poorly defined or lighter in density, and you have already set the print-quality slider to **Quality** in the driver dialog, select the custom print-quality options, and try setting the quality level to **Normal**.

Edges of objects are darker than expected



If edges of objects seem darker than expected, and you have already set the print-quality slider to **Quality** in the driver dialog, select the custom print-quality options, and try setting the quality level to **Speed**.

Vertical lines of different colors

If your print has vertical bands of different colors along it:

1. Try using thicker paper, choosing from the recommended paper types such as HP Heavyweight Coated Paper.
2. Try using higher print-quality settings. For instance, if you have set the Print Quality slider to **Speed**, try setting it to **Quality**.

White spots on the print

You may notice white spots on the print. This is probably due to paper fibers, dust or loose coating material. To avoid this problem:

1. Try cleaning the paper manually with a brush before printing, to remove any loose fibers or particles.
2. Always keep the cover of your printer closed.
3. Protect your paper rolls and sheets by storing them in bags or boxes.

Colors are inaccurate



If the colors of your print do not match your expectations, try the following:

1. Check that the paper type you have loaded corresponds to the paper type selected.
2. Check that you are printing on the correct side of the paper.
3. Check that you are using appropriate print-quality settings. For the most accurate colors, select **Speed** or **Best** quality.
4. Print the print-quality diagnostic report. See General print-quality troubleshooting on page 83.

Colors are fading

If you print on instant-dry photo paper, your prints will fade rapidly. If you plan to display the prints for more than two weeks, you should laminate them to achieve longer life.

Prints on swellable coated papers will fade much less rapidly. However, lamination will increase the life of prints (depending on the type of lamination) with all paper types. For more information, consult your laminate provider.

The image is incomplete (clipped at the bottom)

- Did you press X before all the data were received by the printer? If so, you have ended the data transmission and will have to print the page again.
- The **I/O timeout** setting may be too short. This setting determines how long the printer waits for the computer to send more data, before deciding that the job is finished. From the front panel, increase the **I/O timeout** setting to a longer period and then send the print again. Press , then **Connectivity** > **Advanced setup** > **Select I/O timeout**.
- There may be a communications problem between your computer and the printer. Check your USB or network cable, or your Wi-Fi connection.
- Check to make sure that your software settings are correct for your current page size (for example, long-axis prints).
- If you are using network software, make sure it has not timed out.

http://www.justmanuals.com

The image is clipped

Clipping normally indicates a discrepancy between the actual printable area on the loaded paper and the printable area as understood by your software.

- Check the actual printable area for the paper size you have loaded.

  printable area = paper size – margins

- Check what your software understands to be the printable area (which it may call "printing area" or "imageable area"). For example, some software applications assume standard printable areas that are larger than those used in this printer.
- If you have defined a custom page size with very narrow margins, the printer may impose its own minimal margins, clipping your image slightly. You may want to consider using a larger paper size.
- If your image contains its own margins, you may be able to print it successfully by using the **Clip Contents by Margins** option.
- If you are trying to print a very long image on a roll, check that your software is capable of printing an image of that size.
- You may have asked to rotate the page from portrait to landscape on a paper size that is not wide enough.
- If necessary, reduce the size of the image or document in your software application, so it fits between the margins.

There is another possible explanation for a clipped image. Some applications, such as Adobe Photoshop, Adobe Illustrator and CorelDRAW, use an internal 16-bit coordinate system which means that they cannot handle an image of more than 32,768 pixels.

NOTE: An image 32,768 pixels long would print at a length of 1.39 m (54.61 in) if you select Best or Quality in the driver, 2.78 m (109.23 in) if you select Fast, Normal or Speed in the driver.

If you try to print an image larger than this from these applications, the bottom of the image may be clipped. To print the whole image, try these suggestions:

- The driver dialog includes an option called **Max. application resolution**, which enables you to print successfully in this situation. You will not normally need to change the default setting, which is **Auto**. However, you can find the option in the **Advanced** tab, under **Document Options** > **Printer Features**.
- Save the file in another format, such as TIFF or EPS, and open it with another application.
- Use a RIP to print the file.

Some objects are missing from the printed image

Large quantities of data may be necessary to print a high-quality large-format print job, and in some specific workflows there may be issues that can lead to some objects missing from the output. Here are some suggestions to help you to avoid this problem.

- Tell the HP-GL/2 driver to send the image as a bitmap.
- Select a smaller page size and scale to the desired final page size in the driver or in the front panel.

- Save the file in another format, such as TIFF or EPS, and open it with another application.
- Use a RIP to print the file.
- Reduce the resolution of bitmap images in your application software.
- Select a lower print quality in order to reduce the resolution of the printed image.

NOTE: If you are working under Mac OS, not all of these options are available.

These options are suggested for troubleshooting purposes and may adversely affect the final output quality or the time necessary to generate the print job. Therefore, they should be cancelled if they do not help to solve the problem.

A PDF file is clipped or objects are missing

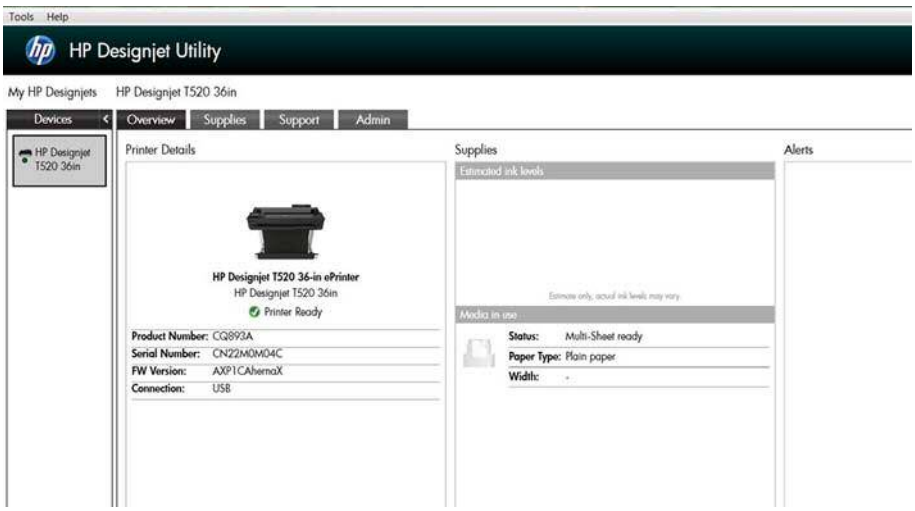
In older versions of Adobe Acrobat or Adobe Reader, large PDF files could be clipped or lose some objects when printing with the HP-GL/2 and HP RTL driver at high resolution. In order to avoid such problems, upgrade your Adobe Acrobat or Adobe Reader software to the latest version. From version 7 onwards, these problems should be solved.

Update the firmware

There are various ways of downloading and installing firmware updates, as described below; you can choose whichever you find most convenient.

Update the firmware from the HP (Designjet) Utility

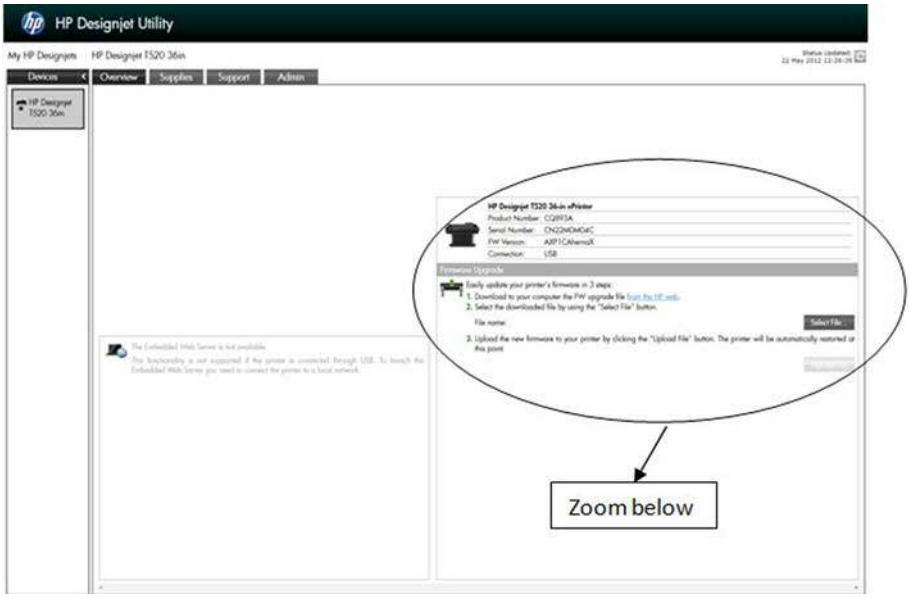
1. Launch the HP Designjet Utility under Windows or the HP Utility under Mac OS.

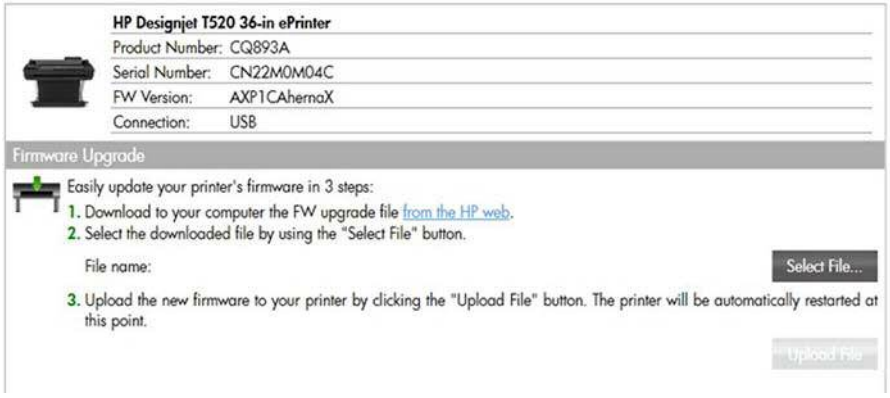


2. Go to the **Admin** tab.

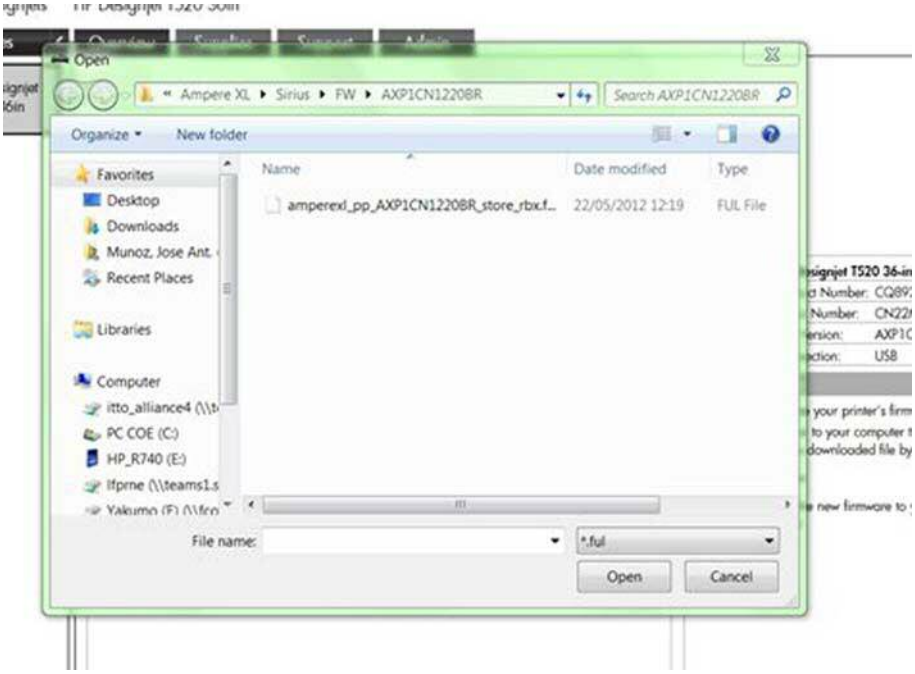
http://www.justmanuals.com

3. Select **Update Firmware**.

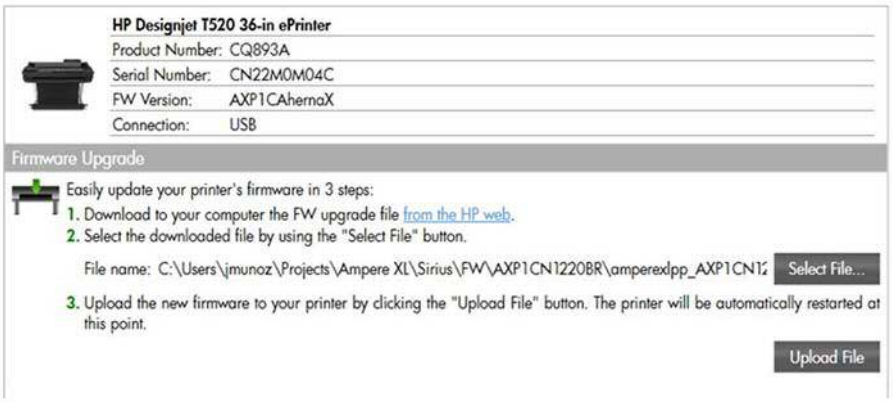



HP Designjet T520 36-in ePrinter
Product Number: CQ893A
Serial Number: CN22M0M04C
FW Version: AXP1CAhernaX
Connection: USB
Firmware Upgrade
Easily update your printer's firmware in 3 steps:
1. Download to your computer the FW upgrade file from the HP web.
2. Select the downloaded file by using the "Select File" button.
File name:
Select File...
3. Upload the new firmware to your printer by clicking the "Upload File" button. The printer will be automatically restarted at this point.

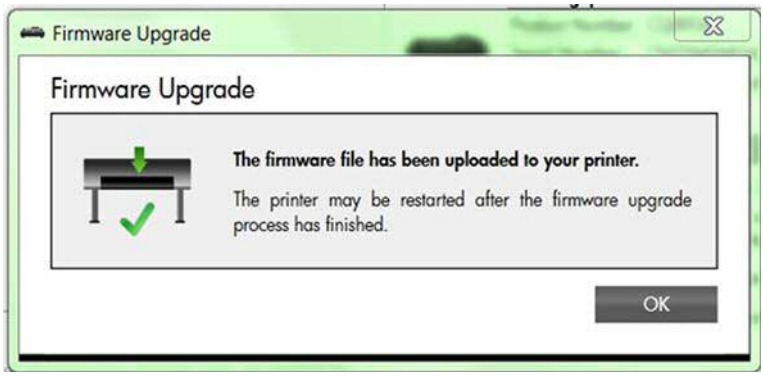
4. Click **Select File** and a pop-up window to select the firmware upgrade file will appear.



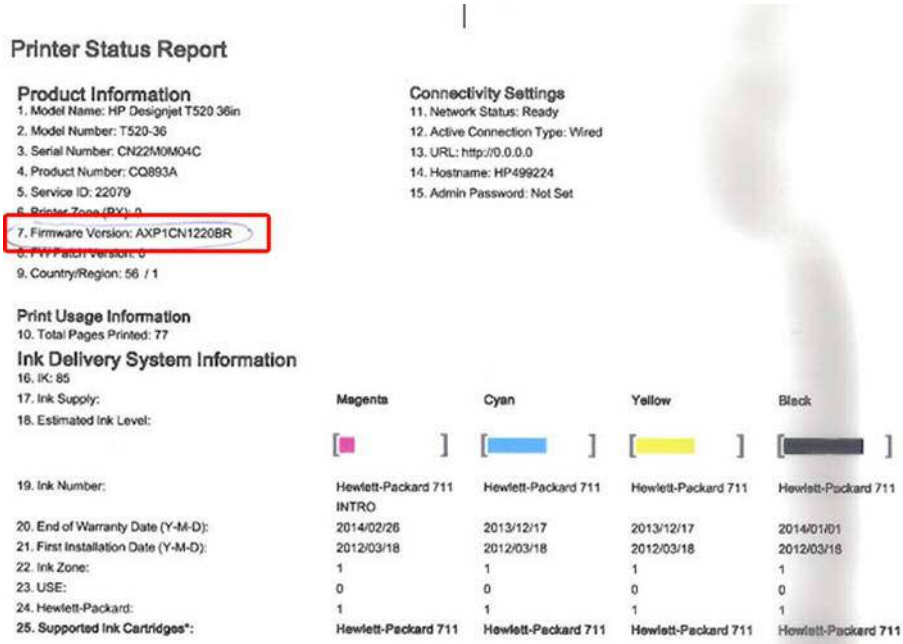
5. Select the file (*.ful) and click **Open** button. Then the **Upload File** button will be enabled. Click it to start the firmware upgrade.


HP Designjet T520 36-in ePrinter
Product Number: CQ893A
Serial Number: CN22M0M04C
FW Version: AXP1CAhernaX
Connection: USB
Firmware Upgrade
Easily update your printer's firmware in 3 steps:
1. Download to your computer the FW upgrade file from the HP web.
2. Select the downloaded file by using the "Select File" button.
File name: C:\Users\jmunoz\Projects\Ampere XL\Sirius\FW\AXP1CN1220BR\amperexlpp_AXP1CN1
Select File...
3. Upload the new firmware to your printer by clicking the "Upload File" button. The printer will be automatically restarted at this point.
Upload File

6. Once the file has been sent, a new pop-up is displayed.


Firmware Upgrade
Firmware Upgrade
The firmware file has been uploaded to your printer.
The printer may be restarted after the firmware upgrade process has finished.
OK

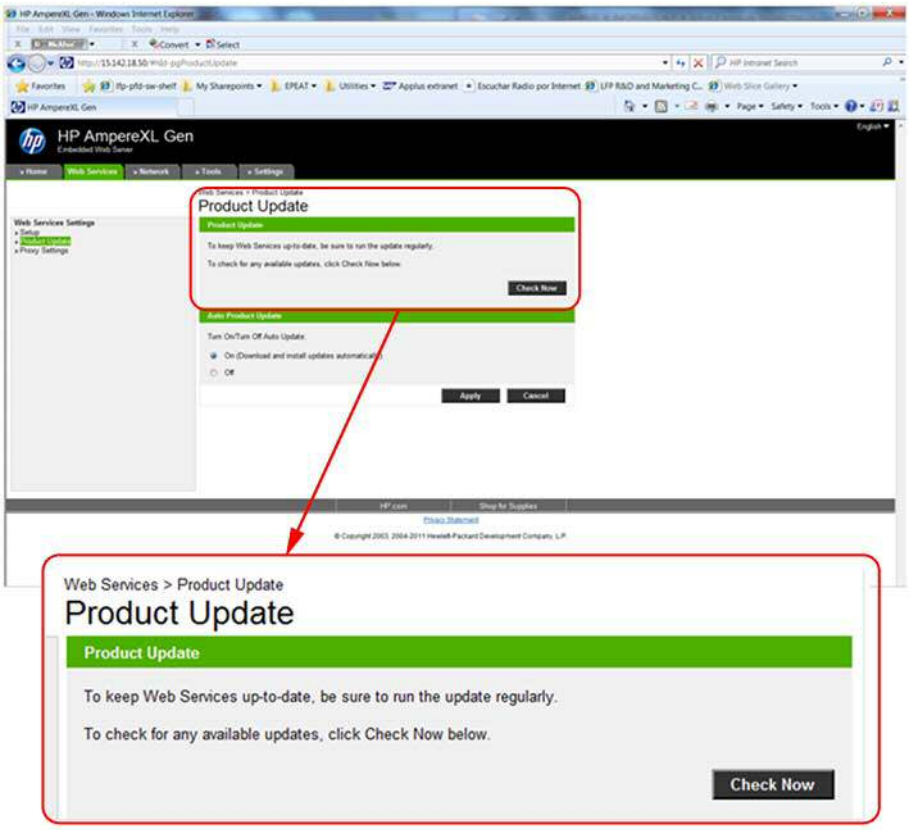
7. Press **OK**. The printer restarts to finish the firmware upgrade, and the printer status report is printed. Check that the firmware version is the latest.



http://www.justmanuals.com

Update the firmware from the Embedded Web Server

1. Ensure that the printer is connected to the Internet.
2. Go to **Web Services**.
3. Select **Printer Update**.



Update the firmware automatically from the Front Panel

1. Ensure that the printer is connected to the Internet.
2. Go to **Web Services**.
3. Select **Automatic FW upgrade**.

3 Support menus

In this chapter you will find an explanation in detail of each of the items included in the Support Menu and the Extended Support Menu. All these service options and utilities are available to customers under the assistance of an HP call agent.

- Entering the support menus
- Support menu
- Extended Support menu

http://www.justmanuals.com

Entering the support menus

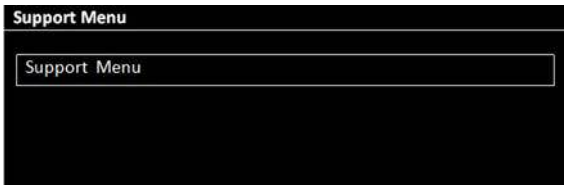
There are two different menus, one used for customers following instructions by phone assisted by a **call agent** in order to troubleshoot an issue, and/or to access printer information when a customer has contacted HP for assistance; and a second menu accessible only by **service engineers** and used for troubleshooting, diagnosis during repair, calibrations, reset, and accessing printer information during a service operation.

NOTE: Some utilities included in these menus need a password in order to be executed. The password is: 3746

Entering the Support Menu for customers

Use the following procedure to enter into the Support menu.

1. The Support Menu for the customer is accessible from any screen by pressing the Power Button continuously for 15 seconds. This menu is also accessible from the Home screen by pressing: Back / Back / Back / Back .
2. The following screen will display, select **Support Menu**.



3. The following screen will display:



4. Navigate through the menu using the Left arrow ( ) and Right arrow ( ) in the Front Panel magic frame. You could also use the Up and Down arrows of the Front Panel display.



5. To go back to the previous level, use the Cancel ( ) key.

Entering the Extended Support Menu for service engineers

Use the following procedure to enter into the service engineer's Extended Support Menu.

1. This menu is accessible only by the service engineer and is called the Extended Support Menu, accessible from the Home screen by pressing: Home / Back / Home / Home .



NOTE: The Extended Support Menu is accessible only from the Home screen. If there is a system error, you will not be able to access this menu. Therefore, to diagnose the issue, use the Support Menu for customers (by pressing the Power button continuously for 15 seconds). Once the printer is repaired, if you need access to this menu, do the resets or use the service utilities that are accessible only from this menu.

2. The following screen will display with the extended menu options:



NOTE: The **Extended Self Test** is only for manufacturing purposes, it should not be used in a Service environment.

3. Select the **Extended Support Menu** tab on Front Panel, the following menu will display:



4. Navigate through the menu using the Left arrow ( ) and Right arrow ( ) in the Front Panel magic frame. You could also use the Up and Down arrows of the Front Panel display.



5. To go back to the previous level always use Cancel ( ) key.

For information on the extra items in the Extended Support Menu, see Extended Support menu on page 124.

http://www.justmanuals.com

Support menu

In this section of the service manual you will find an explanation in detail of each of the menus included on the Support Menu. All these service options and utilities are available to customers under the assistance of an HP call agent. For a diagram of the menu tree, see Support menu tree on page 335.

Information menu

1.1 Model number

Select this to get the printer's Model Number

1.2 Serial number

Select this to get the printer's Serial Number

1.3 Firmware version

Select this to get the printer's Firmware Version. The firmware version have the following format:
AXP2CN1218MR

Where:

- AXP2CN = Product Id
- 12= Year
- 18= Week
- M= Minor weekly revision

1.4 Country/Language

Select this to get the printer's Country location and language setting.

1.5 Error history

Select this to get the printer's last 10 system errors or asserts.


Support Menu
Error Log:
Press <> to navigate error list.
Press X to exit
[1] 41:10 Unable to move PAPER SERVO or no feedback received.
Corrective Action: Reconnect or replace paper encoder/motor.
OK

Keep using Left arrow (◀) and Right arrow (▶) in the Front Panel magic frame to navigate thru the errors list. The first error [1] is the most recently logged.

1.6 Printhead install date

Select this to get the PHA installation date, use this to find out the PHA warranty.

1.7 Printhead drop count

Select this to display the amount of ink fired (ml) by the printhead for each color. Also shows printhead warranty status.



*Warranty Info Status can be:

- In Warranty
- Out of Warranty

1.8 Wireless region

Select this to verify the wireless region. By default, it´s configured to WorldSafe. To change the wireless region go to Service Menu, see 5.5 Wireless region on page 124.



Press **OK**:



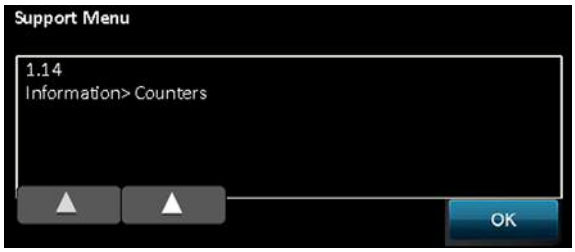
1.9 to 1.13

Only for manufacturing purposes.

1.14 Counters

Select this to get information about the number of pages printed and Carriage cycles.

http://www.justmanuals.com



Press **OK**:



Diagnostics menu

2.1 Carriage servo

Description

This test verifies all the components associated with the Carriage servo subsystem: Carriage Motor, Encoder Strip, and Encoder Strip sensor (located on the Carriage PCA). When the test is done the Carriage is uncapped and moved outside the Service Station in order to check that all the components work properly or if any seems damaged.

Associated errors

When any of the following errors occur in the printer, this diagnostics procedure must be performed:

- System error 42:10
- Printhead missing or damaged
- Carriage jam error during printer startup

Procedure

1. From the Diagnostics menu, select **2.1 Carriage Servo** and then **OK**.

2. The Carriage will be uncapped and moved outside the Service Station. If everything is fine the following screen will be displayed:



3. If there is a failure you will see one of these system errors:

   - 42.1:10
   - 02:10

2.2 Paper servo

Description

This test verifies all the components associated with the Paper servo Subsystem: Paper Motor, Feed Encoder Disk, Feed Encoder PCA, and Index Encoder PCA. When the test is done the feed roller is moved a small distance in both directions in order to check that all the components work properly or if any is damaged.

Associated errors

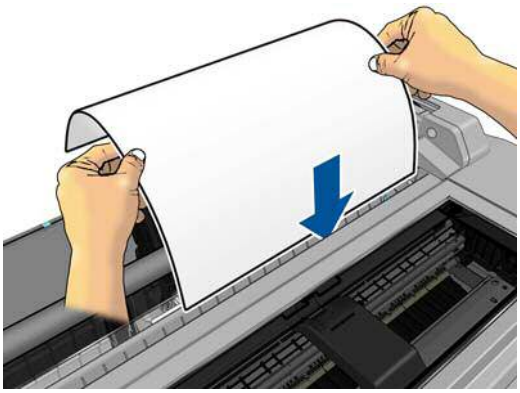
When any of the following errors occur in the printer, this diagnostics procedure must be performed:

- System error 41:10
- Paper jam error

Procedure

1. From the Diagnostics menu, select **2.2 Paper Servo** and then **OK**.
2. Open the Top Cover and press **OK** again to verify if the feed roller is moving.

TIP: If there is no roll paper loaded and in order to check easily if the feed roller is moving or not you can introduce a paper sheet into the top input slot (where single sheets are loaded see below) if the feed roller moves correctly you will see the paper moving up and down.



http://www.justmanuals.com

3. The feed roller will be moved a bit in both directions. If everything is fine the following screen will be displayed:



4. If there is a failure you will see one of these system errors:
   - 41.2:10
   - 85.2:10

2.3 Ink Cartridge Cover Sensor

Description

This test verifies the ink cartridge cover sensor. When this test is done you will be asked to open the Ink Cartridge Cover Sensor to check that the sensor is not damaged.

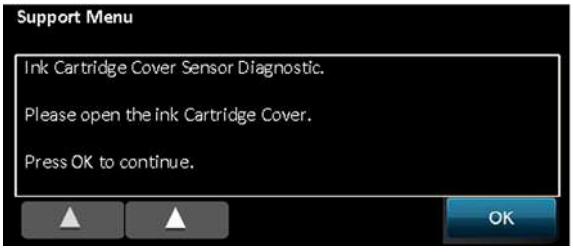
Associated errors

When any of the following errors occur in the printer, this diagnostics procedure must be performed:

- When opening the Ink Cartridge Cover, the Carriage does not move to the ink cartridges replacement position.
- The printer shows the animation “Replace ink cartridges and close Ink Cartridge Cover” continuously although the door is closed.

Procedure

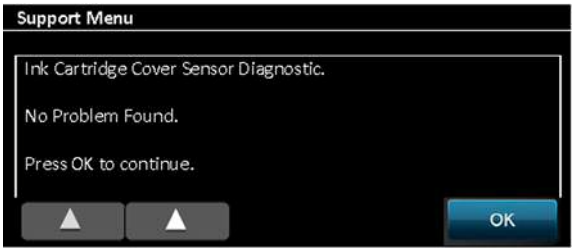
1. From the Diagnostics menu, select **2.3 Ink Cartridge Cover Sensor** and then **OK**.
2. Press **OK** again to start the test, the following screen will display:



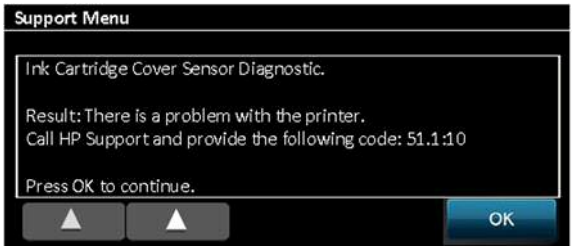
3. Open the Ink Cartridge Cover and press **OK**. The screen message will change for this:



4. Close the Ink Cartridge Cover and press **OK**. If the sensor is not damaged then you will see:



5. If the sensor does not work properly there will be the following error:


Support Menu
Ink Cartridge Cover Sensor Diagnostic.
Result: There is a problem with the printer.
Call HP Support and provide the following code: 51.1:10
Press OK to continue.
OK

6. If there is a failure, replace the Ink Cartridge Cover Sensor PCA, see Ink Cartridge Cover PCA Assembly on page 198.

2.4 Top Cover Sensor

Description

This test verifies the Top Cover Sensor. When this test is done you will be asked to open and close the Top Cover to check that the sensor is not damaged.

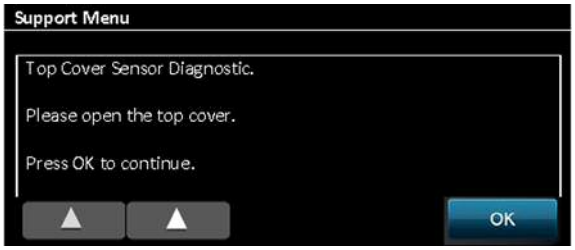
Associated errors

When any of the following errors occur in the printer, this diagnostics procedure must be performed:

- The printer shows the animation “Close Top Cover” continuously although the cover is closed.
- When you open the Top Cover, the printer does not beep and does not show the “Close Top Cover” animation in the Front Panel.

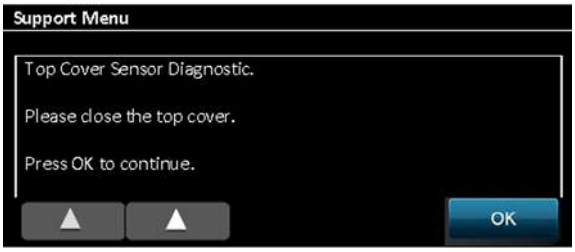
Procedure

1. From the Diagnostics menu, select **2.4 Top Cover Sensor** and then **OK**.
2. Press **OK** again to start the test, the following screen will display:

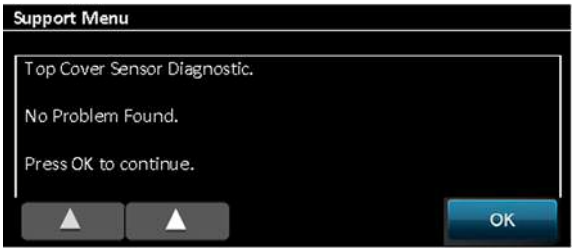


http://www.justmanuals.com

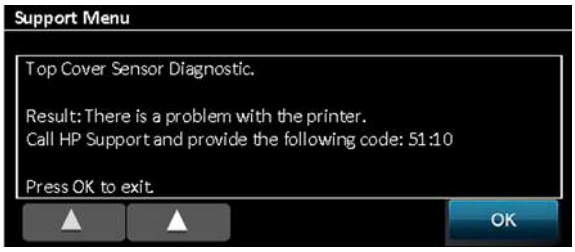
3. Open the Top Cover and press **OK**. The screen message will change to:



4. Close the Top Cover and press **OK**. If the sensor is not damaged then you will see:



5. If the sensor does not work properly there will be the following error:


Support Menu
Top Cover Sensor Diagnostic.
Result: There is a problem with the printer.
Call HP Support and provide the following code: 51.10
Press OK to exit.
OK

6. If there is a failure, replace the Top Cover Sensor PCA.

2.5 Out-Of-Paper Sensor

Description

This test verifies the Out-Of-Paper Sensor. When this test is done you will be asked to introduce a single sheet to check that the sensor is not damaged.

Associated errors

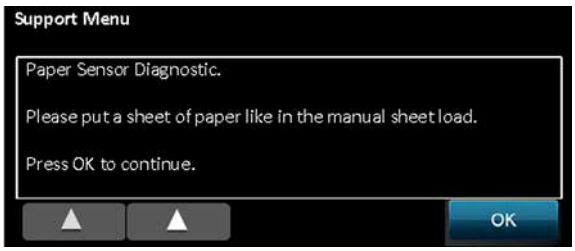
When any of the following errors occur in the printer, this diagnostics procedure must be performed:

- The printer is not able to complete the load because it cannot detect the paper
- The printer shows in the Front Panel that the paper is loaded although there is not any paper loaded.

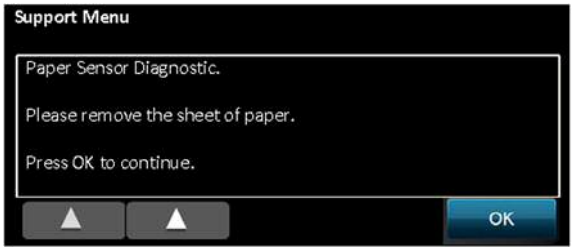
Procedure

1. From the Diagnostics menu, select **2.5 OOP Sensor** and then **OK**.

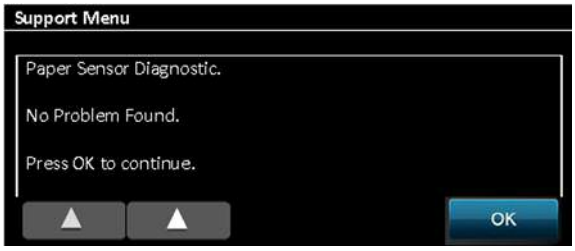
2. Press **OK** again to start the test, the following screen will display:



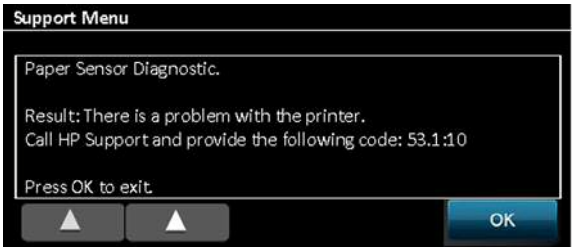
3. Insert the paper sheet and press **OK**. The screen message will change for this:



4. Remove the paper and press **OK**. If the sensor is not damaged then you will see:



5. If the sensor does not work properly there will be the following error:


Support Menu
Paper Sensor Diagnostic.
Result: There is a problem with the printer.
Call HP Support and provide the following code: 53.1:10
Press OK to exit.
OK

6. Replace the OOP sensor, see Out-Of-Paper Sensor on page 281.

2.6 Output Tray Sensor

Description

This test verifies the Output Tray Sensor. When this test is done you will be asked to open and close the Output Tray door to check that the sensor is not damaged.

Associated errors

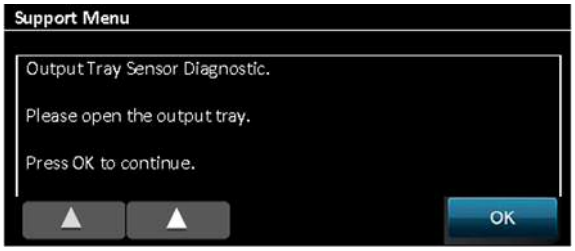
When any of the following errors occur in the printer, this diagnostics procedure must be performed:

- The printer shows the animation “Close Output Tray Sensor” when trying to load or print from roll although the tray is closed.

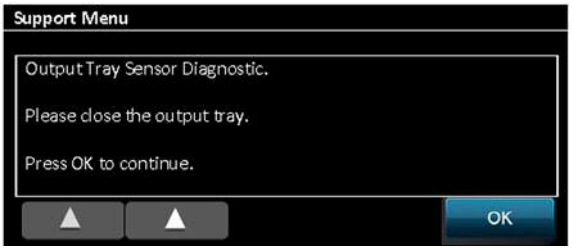
http://www.justmanuals.com

Procedure

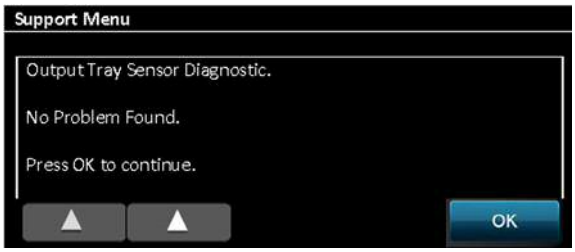
1. From the Diagnostics menu, select **2.6 Output Tray Sensor** and then **OK**.
2. Press **OK** again to start the test, the following screen will display:



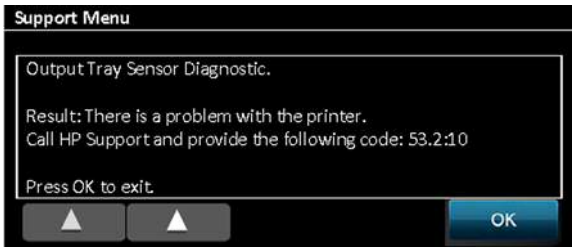
3. Open the Output Tray and press **OK**. The screen message will change for this:



4. Close the Output Tray and press **OK**. If the sensor is not damaged then you will see:



5. If the sensor does not work properly there will be the following error:


Support Menu
Output Tray Sensor Diagnostic.
Result: There is a problem with the printer.
Call HP Support and provide the following code: 53.2:10
Press OK to exit.
OK

6. Replace the Output Tray Sensor, see Output Tray Sensor Assembly on page 286.

2.7 Line Sensor

Description

This test verifies the Line Sensor. When this test is done you will be asked to load paper into the Multi-Sheet Tray in order to check that the sensor is not damaged.

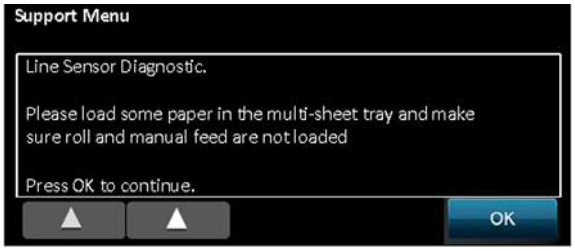
Associated errors

When the following error occurs in the printer, this diagnostics procedure must be performed:

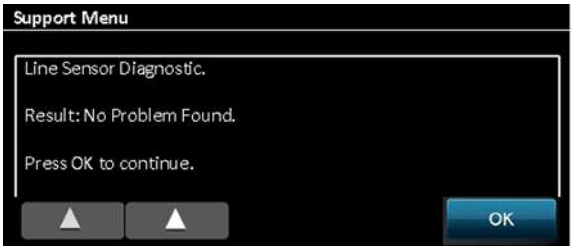
- The printer is unable to complete the load because it cannot detect the paper.

Procedure

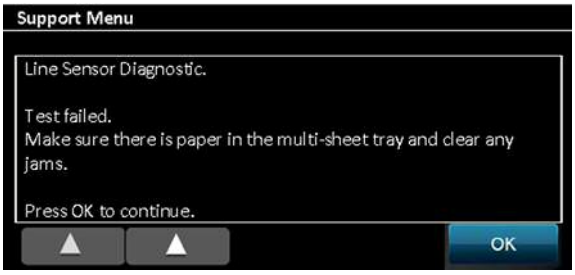
1. From the Diagnostics menu, select **2.7 Line Sensor** and then **OK**.
2. Press **OK** again to start the test, the following screen will display:


Support Menu
Line Sensor Diagnostic.
Please load some paper in the multi-sheet tray and make sure roll and manual feed are not loaded
Press OK to continue.
OK

3. Check that there is paper in the Multi-Sheet Tray and the roll is unloaded and press **OK**. Then one sheet will be loaded to perform the test. If the test is correctly done you will hear 3 beeps, and the paper will be unloaded to finish the test, and the following will be displayed:



4. If the sensor is not working properly the system error 55:10 will appear. The Line Sensor should be replaced, see Carriage Line Sensor on page 293.
5. If the Multi-Sheet Tray is empty or the paper cannot be loaded, you will see the following screen:


Support Menu
Line Sensor Diagnostic.
Test failed.
Make sure there is paper in the multi-sheet tray and clear any jams.
Press OK to continue.
OK

6. If the test fails:
   a. Check that there is no paper jam preventing the sheet loading process. Remove the Multi-Sheet Tray if necessary.
   b. Perform the OOP sensor diagnostics to be sure that the Paper Sensor works correctly, see 2.5 Out-Of-Paper Sensor on page 110.

2.8 Pump

Description

http://www.justmanuals.com

This test verifies the Pump Motor. When the test is done the Carriage is uncapped and moved a bit outside the Service Station, then the Pump Motor will start to pump and by opening the Top Cover you will be able to hear if it is pumping.

Associated errors

When the following error occurs in the printer, this diagnostics procedure must be performed:

- When there is an ink system failure during printhead priming even with new supplies and new printhead.

Procedure

1. From the Diagnostics menui, select **2.8 Pump** and then **OK**.
2. Press **OK** again to start the test, the following screen will display:


Support Menu
Pump Diagnostic.
Please open the Top Cover
Press OK to continue. Pay attention to listen if pump is working.
OK

3. Open the Top Cover, the Carriage will be uncapped and moved outside of the Service Station. The Pump will start to pump for some seconds. If you can hear it, then the pump is OK.
4. Once the Pump stops pumping, the Carriage returns to the cap position, and the message in the screen changes automatically to:



5. If you cannot hear the Pump then it should be replaced, see Prime Pump on page 233.

6. If the Pump works, check the pump tubes visually:

TIP: Only for service engineers: In order to check that the Prime Pump works properly, besides hearing the noise during the diagnostic test by opening the Top Cover, put your hand close to the Pump's air output (see picture below), and you can feel whether the Primer is pumping air or not.



2.9 Display frame keys

Description

This test verifies all the keys in the Front Panel frame: Home, Help, Left arrow, Right arrow, Back, Cancel, and the Power key located on the right of the Front Panel. When this test is done you are asked to press these keys one by one to check whether any are damaged.

Associated errors

When the following error occurs in the printer, this diagnostics procedure must be performed:

- One or more keys are unresponsive.

Procedure

1. From the Diagnostics menu, select **2.9 Display Frame keys** and then **OK**.
2. The following screen will display:



3. Check that the Cancel key is on and press it, then the screen will change automatically to the next key (Home). Check again that the Home key is on (the icon should be illuminated), press this key and then one by one through all the keys. The last one is the Power key.

http://www.justmanuals.com

4. If you press all the keys and they work correctly you will see:



5. If any key does not work, the diagnostic will not pass to the next key, and will stay always in the screen of the failing key therefore the front panel should be changed, see Front Panel on page 165. To recover the printer, if this occurs the printer should be restarted by switching it off and on with the power key.

2.10 Display

Description

This test verifies that the Front Panel display works OK.

Associated errors

When any of the following errors occur in the printer, this diagnostics procedure must be performed:

- There is no specific error associated with a failure of some pixels or the backlight of the Front Panel. This diagnostic should be run when we want to check if the front panel display is OK, or if the Front Panel does not respond.

Procedure

1. From the Diagnostics menu, select **2.10 Display** and then **OK**.
2. The following screen will display:



3. Press **OK** several times. Each time that **OK** is pressed the display color will change.
4. Once the test is finished you will see:



2.11 RTC battery status

Description

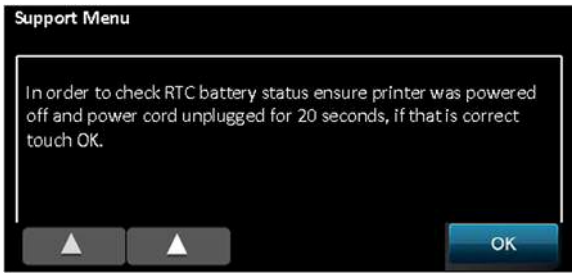
This test checks whether the Real-Time Clock's battery has expired.

Associated errors

There is no error. The symptom is that the date and time is lost when the power cord is disconnected. To check that the battery is OK perform this diagnostic following the procedure below.

Procedure

1. Switch off the printer and remove the power cable.
2. Wait for 20 seconds.
3. Reconnect the power cord and turn on the printer..
4. From the Diagnostics menu, select **2.11 RTC Battery Status** and then **OK**.
5. The following screen is displayed:


Support Menu
In order to check RTC battery status ensure printer was powered off and power cord unplugged for 20 seconds, if that is correct touch OK.
OK

6. If the battery is exhausted the following message is displayed:

   Problem found: Battery expired or RTC problem. Call HP support and provide the following code: 03.1:10

2.12 Service Station

Description

This test verifies the mechanical components of the Service Station to check whether there is any anomaly (such as a mechanical blockage, a broken gear, etc.).

Associated errors

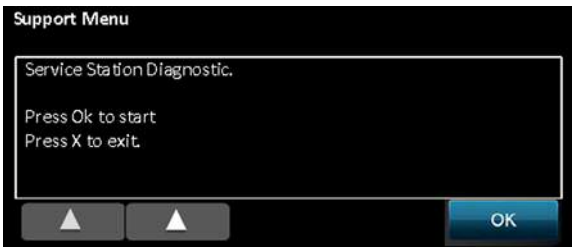
This test is used for manufacturing purposes.

Procedure

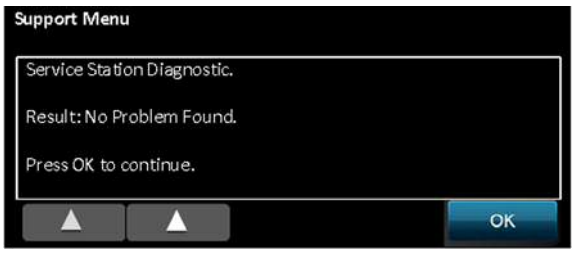
1. From the Diagnostics menu, select **2.12 Service Station** and then **OK**.

http://www.justmanuals.com

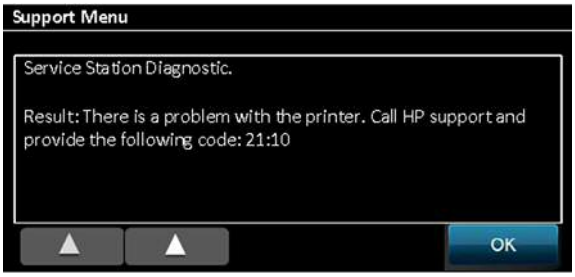
2. The following screen is displayed:



3. Press **OK** to perform the test, if everything is OK the following screen is displayed.



4. If there is a failure with the Service Station test the following screen is displayed:


Support Menu
Service Station Diagnostic.
Result: There is a problem with the printer. Call HP support and provide the following code: 21:10
OK

Reset menus

3.1 Restart OOBE

Restores all the settings of the OOBE (Out Of the Box Experience). This is the first time the printer is installed. This option will ask for language/country, PHA initialization (including printhead alignment) , and connectivity setup.

3.2 Soft reset

Erases all the custom user settings to their default values.

3.3 Hard reset

Erases all the settings and device self-calibrations including OOBE.

3.4 Web Server password

Erases the password set in the Web Server.

Reports

After printing a report the printer will return to the normal printer menu. If you want to continue in the support menu you will have to enter again.

In some cases there is a delay between the moment when you press **OK** in the support menu and when the printer starts to print the report. Please be patient.

4.1 Counters

```
SERVICE COUNTERS REPORT PAGE

=== Media Section ===

Loaded Rolls:
- 8.5 Inches wide:      0       - 11 Inches wide:       0       - 18 Inches wide:       0
- 24 Inches wide:       0       - 36 Inches wide:       0       - Other widths: 0
Overall:        0

Measured Skew Values on Roll Load By Skew range (Units in mm/m):
(..;-18):       0       [-18;-14):      0       [-14;-10):      0       [-10;-6):       0       [-6;-2):        0
[-2;2):         0       [2;6):          0       [6;10):         0       [10;14):        0       [14;18):        0
[18;..):        0

Hand-Fed Sheets:        0

LTray Pages:
- Letter:       0       - Legal:        0       - Ledger:       0
-A4:            1       -A3:            0       - Other Sizes:  0
Overall:        1

LTray Pick Retries:     0

=== Jams & Crashes Section(In progress) ===

Carriage Stalls:        0       Jams:   1

=== Consumables Section ===

Replaced PHAs:  9
Replaced C Cartridges:  1       Replaced M Cartridges:  1
Replaced Y Cartridges:  1       Replaced K Cartridges:  1

=== Servicing Section ===

Capping Operations:     11      Wiping Cycles:  21
Scrapping Cycles:       0       Priming Cycles: 28

=== Scan Axis Section ===

Scan Axis Covered Distance (inches):    6069
Scan Axis Cycles:       135

Cutter Cycles:
- 18 in wide:   0       - 24 in wide:   0
- 36 in wide:   0       - Other widths:         0
Overall:        0

=== Print Section ===

Jobs sent:      1

Printed area on roll (square inches):
- Plain Paper Media Type:
  Best Quality:         0       Normal Quality:         0       Fast Quality:   0

- Other Media Types:
  Best Quality:         0       Normal Quality:         0       Fast Quality:   0
```


http://www.justmanuals.com

4.2 Error history

```
                    SERVICE AND DIAGNOSTICS REPORT

Last errors registered (most recent on top):

1:  0x61000064  -  41:10 (Unable to move PAPER SERVO or no feedback received.)
    Problem: Unable to move PAPER SERVO or no feedback received.
    Action: Reconnect or replace paper encoder/motor

2:  0x003554fa  -  79:04 (0x003554fa)
    Unknown error.

3:  0x00dd9f4a  -  79:04 (0x00dd9f4a)
    Unknown error.

4:  0x0000000b  -  79:14 (Generic motor stalled.)
    Problem: Generic motor stalled.
    Action: Retry, restart, check for obstacles, check motor.

5:  0x06afb26f  -  79:04 (0x06afb26f)
    Unknown error.

6:  0x0000000a  -  08:10 (Control panel does not respond.)
    Problem: Control panel does not respond.
    Action: Reconnect or replace control panel

7:  0x62043150  -  79:04 (0x62043150)
    Unknown error.

8:  0x03f9c2ed  -  79:04 (0x03f9c2ed)
    Unknown error.

9:  0x11998f51  -  79:04 (0x11998f51)
    Unknown error.

10:  0x00000012  -  79:19 (Pen Alignment failed.)
    Problem: Pen Alignment failed.
    Action: Clean/Service print-head, retry, replace p-h and supplies.


Last asserts registered:

        Error Code   File                          Line   Type            When              Details
          003554FA   1063A7D0                      53       LINE & FCRC 2012/03/28  5:01  FILE CRC: 54FA
```

4.3 PMK

```
#-----------------------------------------------------------------#
|            Preventive Maintenance Kit Status Report             |
#-----------------------------------------------------------------#

  PMK 1: Carriage - status: Not required


  * Carriage travelled distance in ~50km units
    - CURRENT VALUE:  0
    - Warning limit:  33
    - Reset value:    0
    - dsid:           76452

  * Carriage cycles
    - CURRENT VALUE:  155
    - Warning limit:  4000000
    - Reset value:    0
    - dsid:           71832

|-----------------------------------------------------------------|

  PMK 2: Service Station - status: Not required


  * SVS & Left spittoon level gauge (warning at 95%, critical at 100%)
    - CURRENT VALUE:  0
    - Warning limit:  2
    - Critical limit: 3

  * SVS level gauge (%)
    - CURRENT VALUE:  0

  * Auxiliary spittoon level gauge (%)
    - CURRENT VALUE:  0

  * SVS tolerance length flag
    - CURRENT VALUE:  0
    - Warning limit:  1
    - Reset value:    0
    - dsid:           77169

|-----------------------------------------------------------------|

  PMK 3: Cutter - status: Not required


  * Cutter #cuts
    - CURRENT VALUE:  0
    - Warning limit:  28000
    - Reset value:    0
    - dsid:           76450

|-----------------------------------------------------------------|
```


http://www.justmanuals.com

4.4 Agent-assisted image test

AGENT-ASSISTED IMAGE TEST

Product and Revision Information

1. Serial Number: CN22M0M04C
2. Firmware Version: AXP1CN1226FR

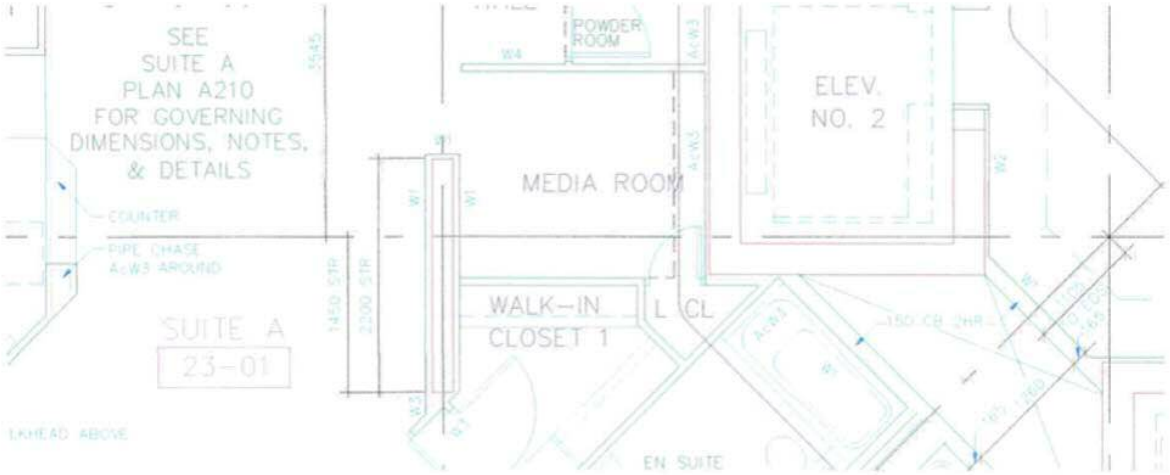
Ink Delivery System Information

3. Ink Supply:	Magenta	Cyan	Yellow	Black
4. SHAID Status:	0	0	0	0
5. End of Warranty Date (Y-M-D):	2014/02/26	2013/12/17	2013/12/17	2014/01/01
6. Warranty Status:	OK	OK	OK	OK

Print Head Information

7. Total Drop Count (ml):	Magenta: 0.872	Cyan: 0.864	Yellow: 0.939	Black: 1.080
8. PHA Install Date:	2012/03/28			





4.5 Button tap

Used only for manufacturing purposes.

Service

5.4 Set mfg mode

Used only for manufacturing purposes.

5.5 Set user mode

Used only for manufacturing purposes.

http://www.justmanuals.com

Extended Support menu

Here you will find an explanation in detail only of those items not included or different in the Support Menu. These resets and utilities should be used only by HP service engineers. For a diagram of the menu tree, see Extended Support menu tree on page 336.

3. Reset menu

3.2 Linefeed MFG cal

This deletes the advance calibration settings from the factory. Not used for service purposes.

3.3 RTC Battery expired

Use this option to reset the RTC battery flag after replacing the RTC battery.

3.4 PMK1

Use this option to reset the counters after installing the Print Maintenance Kit 1 or if replacing the Carriage Assembly/Carriage Belt..

3.5 PMK2

Use this option to reset the counters after installing the Print Maintenance Kit 2 or if replacing the Service Station.

5. Service menu

5.5 Wireless region

This can be used to change the Wireless region.

1. From the Service menu, select **5.5 Wireless Region** and then **OK**.
2. The following screen is displayed:



3. Press **OK**.



4. Use the left arrow (◀) and right arrow (▶) to change the wireless region.

CAUTION: Changing the wireless region has legal implications. If you change the region, be sure you are using the correct wireless region for the country in which the printer is installed.

The options available are the following:

- **World Safe:** It can be used worldwide, and is the default region in the printer. If you are not sure which region to use, please configure the printer with the World Safe region.
  - Settings: 2.4 Ghz; Maximum Power EIRP = 20 dBm; Channels = 1 to 11
- **World:** This region can be used worldwide **except** in the following countries: USA, Canada, and Taiwan.
  - Settings: 2.4 Ghz; Maximum Power EIRP = 20 dBm; Channels = 1 to 13
- **US:** This region can be used **only** in the USA, Canada, or Taiwan. Do not use this wireless region in any other country.
  - Settings: 2.4 Ghz; Maximum Power EIRP = 30 dBm; Channels = 1 to 11

http://www.justmanuals.com

4 Parts and diagrams

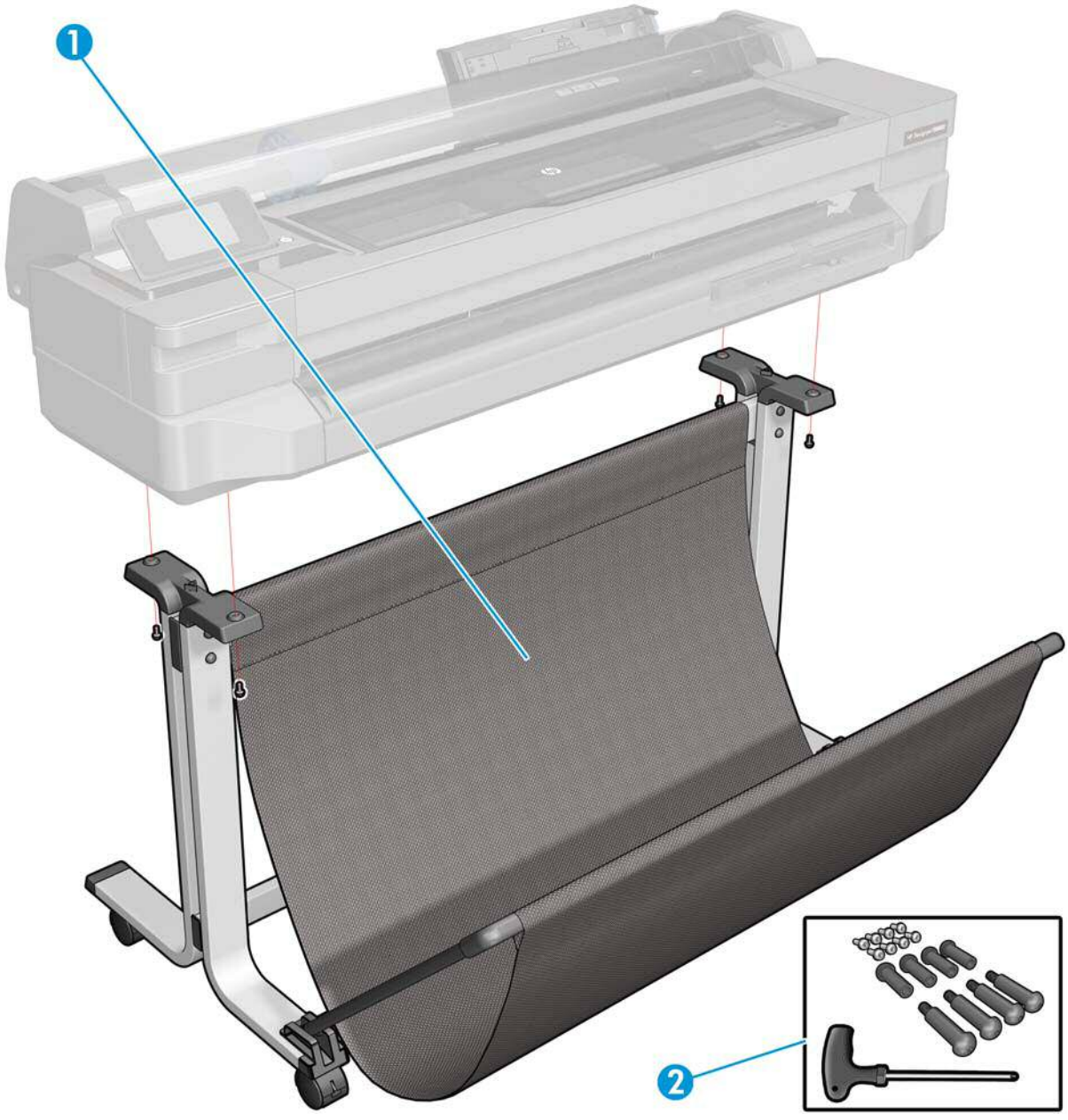
- Introduction
- Printer support
- Covers
- Roll covers
- Right-hand assemblies
- Left-hand assemblies
- Carriage assembly
- Paper path (front)
- Paper path (rear)
- Roll supports
- Sensor Kit
- Miscellaneous parts

Introduction

- The list of parts in this chapter include the notation CSR A or CSR B for parts that can be replaced by the customer. All other parts must be replaced by an engineer. See Customer Self Repair parts on page 145.
- For information on the preventive maintenance kits, see Preventive maintenance kits on page 320.
- Unless otherwise indicated, service parts are compatible with all SKUs. If there is any limitation, it is indicated in the tables below as follows:
  - 36: compatible with the 36-in T520.
  - 24: compatible with the 24-in T520 and the T120.
  - Pro: compatible with the T520.
  - Basic: compatible with the T120.

Printer support

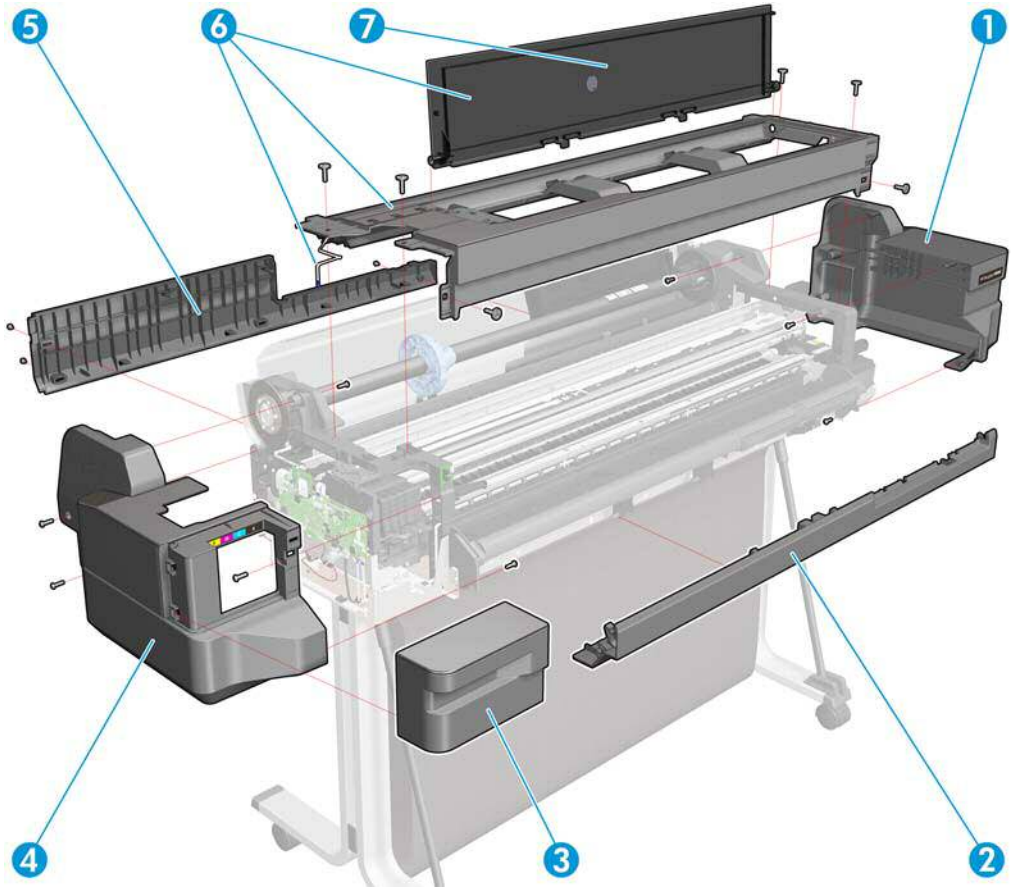
	HP part number	Part description	Removal and installation reference	Comments
1	CQ890-67052	Stand Assembly (24)		CSR A. Includes all parts needed to repair the stand: bin, legs, wheels, brackets, hardware kit, etc., and instruction flier. There are no separate kits for single components.
	CQ890-67053	Stand Assembly (36)		
2	CQ890-67054	Stand Hardware Kit		CSR A. Includes all screws and tools to repair and mount the stand.



http://www.justmanuals.com

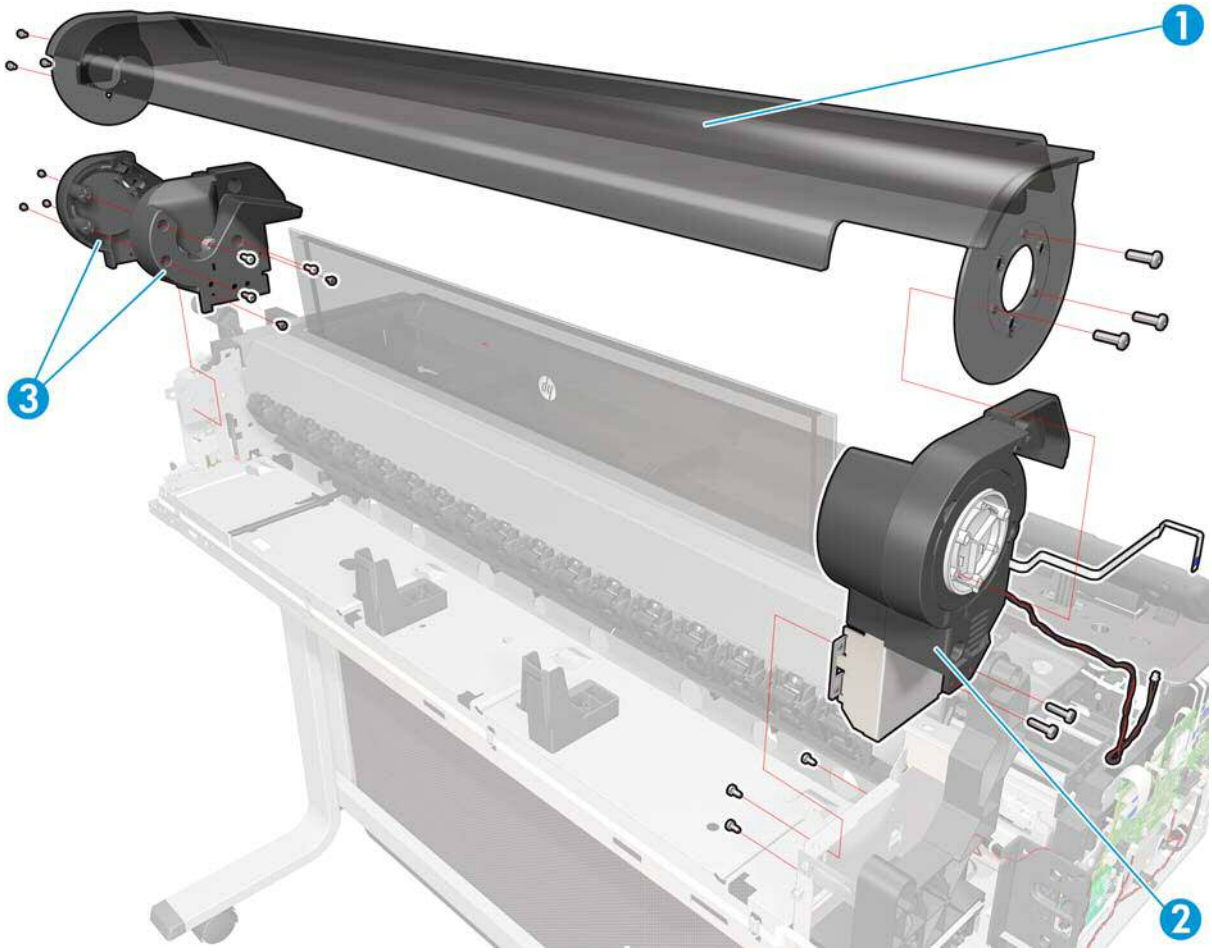
Covers

	HP part number	Part description	Removal and installation reference	Comments
1	CQ890-67011	Right Cover	Right Cover on page 153	
2	CQ890-67050	Front Cover (24)	Front Cover on page 150	CSR A; see Front Cover flier on page 353
	CQ894-67001	Front Cover (36)		
3	CQ890-67046	Ink Cartridge Cover	Ink Cartridge Cover on page 156	CSR A; see Ink Cartridge Cover flier on page 354
4	CQ890-67012	Left Cover	Left Cover on page 158	
5	CQ890-67010	Back Cover (24)	Back Cover on page 163	
	CQ893-67002	Back Cover (36)		
6	CQ890-67014	Central Cover (Basic)	Central Cover on page 172	Includes Top Cover and Top Cover Sensor
	CQ891-67008	Central Cover (24-Pro)		
	CQ893-67004	Central Cover (36)		
7	CQ891-67007	Top Cover (Basic)	Top Cover on page 147 also known as Central Window	Opaque
	CQ890-67009	Top Cover (24-Pro)		Transparent
	CQ890-67008	Top Cover (36)		



Roll covers

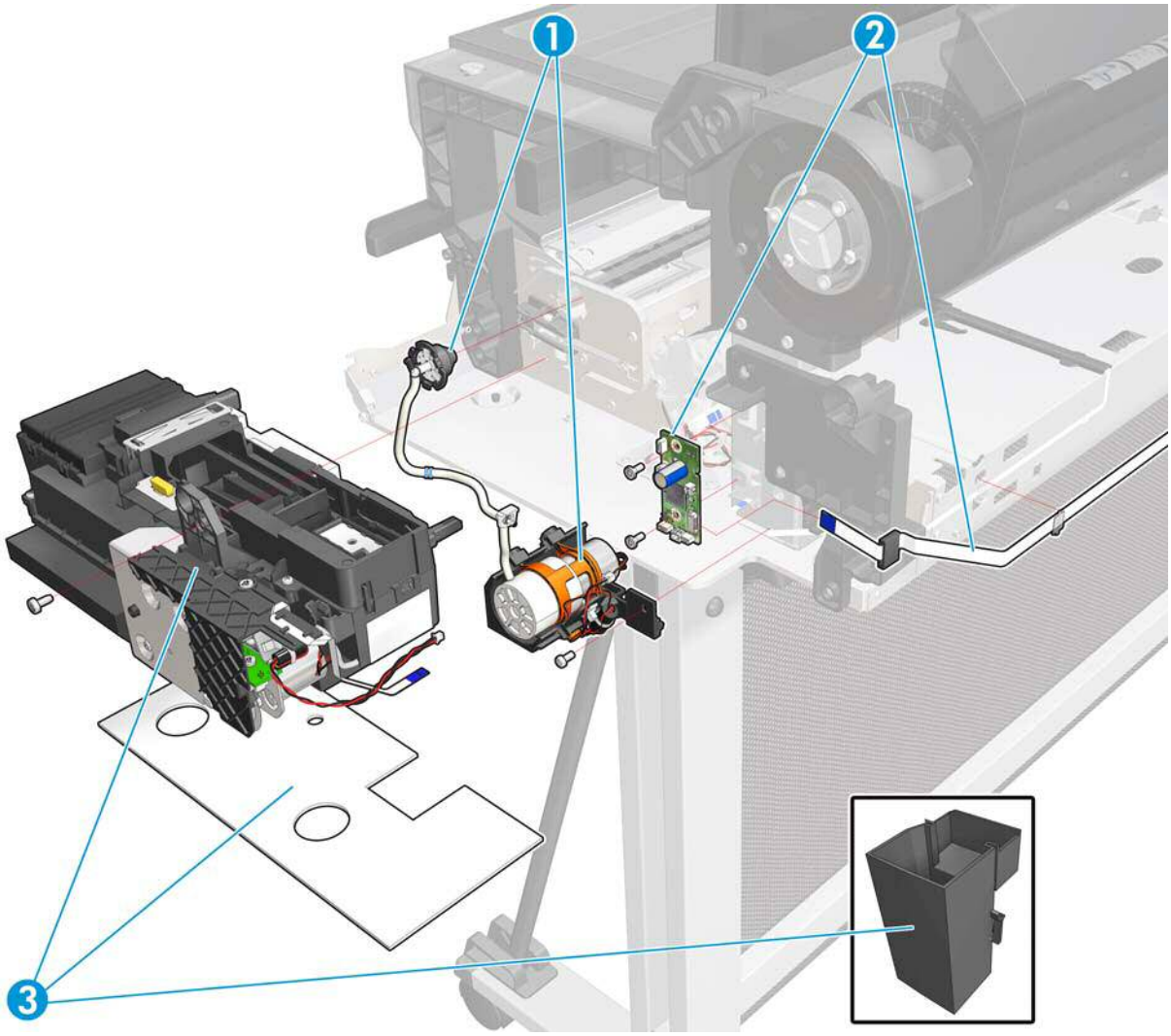
	HP part number	Part description	Removal and installation reference	Comments
1	CQ890-67013	Roll Cover (24-Pro)	Roll Cover on page 160	
	CQ893-67003	Roll Cover (36)		
2	CQ890-67051	Left Roll Support with Rewinder and Cover (Basic)	Left Roll Support on page 180	
	CQ890-67037	Left Roll Support with Rewinder and Cover (Pro)		
3	CQ890-67038	Right Roll Support with Cover and dampers (Pro)	Right Roll Support on page 185	The Basic Right Roll Support does not need dampers because there is no Roll Cover.
	CQ891-67009	Right Roll Support with Cover (Basic)		



http://www.justmanuals.com

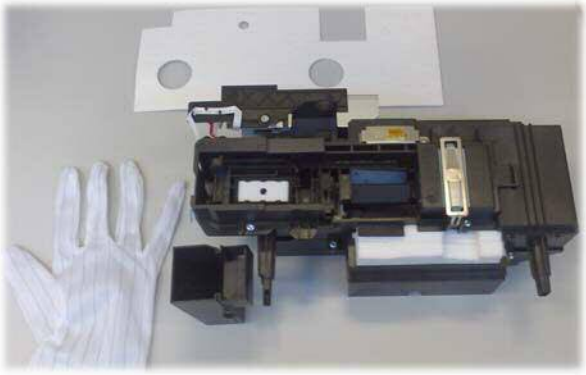
Right-hand assemblies

	HP part number	Part description	Removal and installation reference	Comments
1	CQ890-67030	Prime Pump	Prime Pump on page 233	
2	CQ890-67022	Bundle Board	Bundle Board on page 297	Interconnect board
3	CQ890-67045	Service Station Assembly	Service Station on page 227	Includes the Service Station motor, encoder, spittoons, wipers, extra absorber pad (in case of need), extra left spittoon (in case of need), and gloves. The Left Spittoon is available also in a separate kit (see Left-hand assemblies on page 132).



Service Station kit

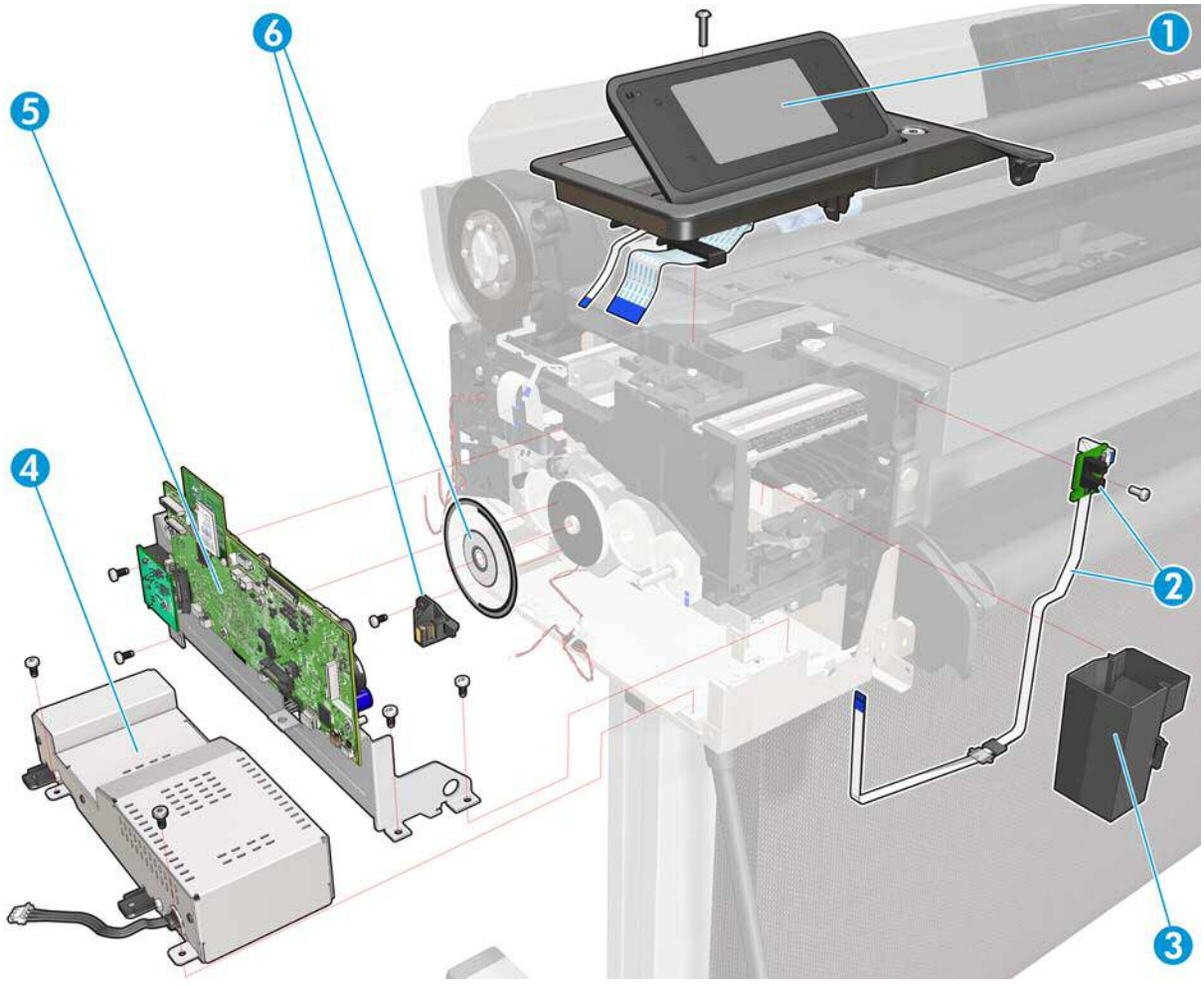




http://www.justmanuals.com

Left-hand assemblies

	HP part number	Part description	Removal and installation reference	Comments
1	CQ890-67026	Front Panel	Front Panel on page 165	Includes Front Panel PCA, Power button, cable, and ribbon cable incorporated and assembled. There is no separate kit for the Power button PCA, always order the full Front Panel module.
2	CQ890-67028	Ink Cartridge Cover Sensor	Ink Cartridge Cover PCA Assembly on page 198	
3	CQ890-67044	Left Spittoon	Left Spittoon on page 310	Includes gloves
4	CQ890-67025	Power Supply SV	Power Supply on page 202	
5	CQ890-67023	Main PCA Pro	Main PCA on page 205	Includes the Wireless PCA
	CQ891-67003	Main PCA Basic		
6	CQ890-67033	Encoder Disk	Encoder Disk on page 217	Includes instruction flier and gloves



Ink Cartridge Cover Sensor kit



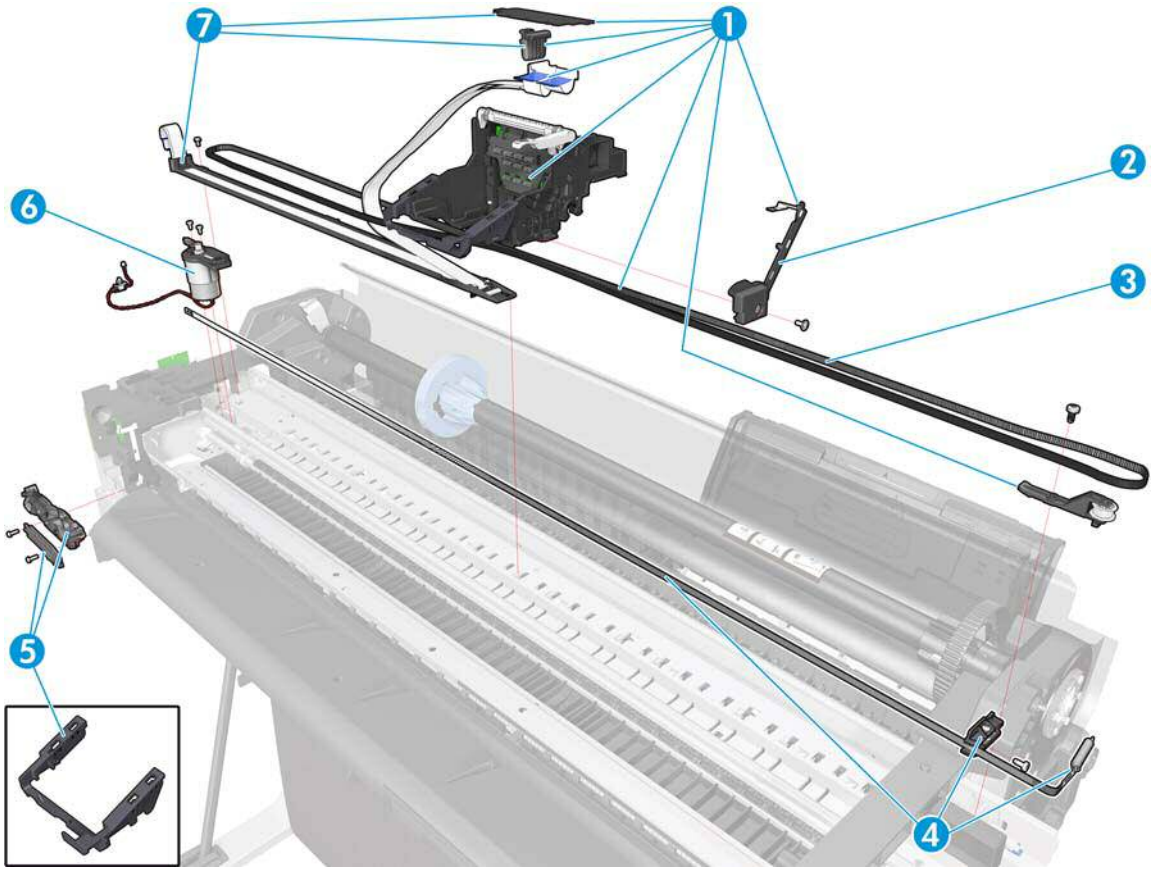
Encoder Disk kit



http://www.justmanuals.com

Carriage assembly

	HP part number	Part description	Removal and installation reference	Comments
1	CQ890-67002	Carriage Assembly with Belt (24)	Carriage and Belt on page 236	Includes carriage base, carriage PCA and cover, Carriage Line Sensor, extra Encoder Strip, instruction flier, and gloves
	CQ893-67011	Carriage Assembly with Belt (36)		
2	CQ890-67001	Carriage Line Sensor (ZIM Sensor)	Carriage Line Sensor on page 293	Includes T-6 screwdriver
3	CQ890-67059	Belt (24)	Carriage Belt on page 243	
	CQ893-67016	Belt (36)		
4	CQ890-67003	Encoder Strip (24)	Encoder Strip on page 193	Includes gloves
	CQ890-67004	Encoder Strip (36)		
5	CQ890-67017	Cutter Assembly	Cutter Assembly on page 272	Includes cutter body, cutter extrusion lead (cover), cutter bridge, and instruction flier
6	CQ890-67006	Carriage Motor	Carriage Motor on page 268	Includes instruction flier and gloves
7	CQ890-67005	Trailing Cable (24)	Trailing Cable on page 220	
	CQ893-67001	Trailing Cable (36)		



Carriage Line Sensor kit





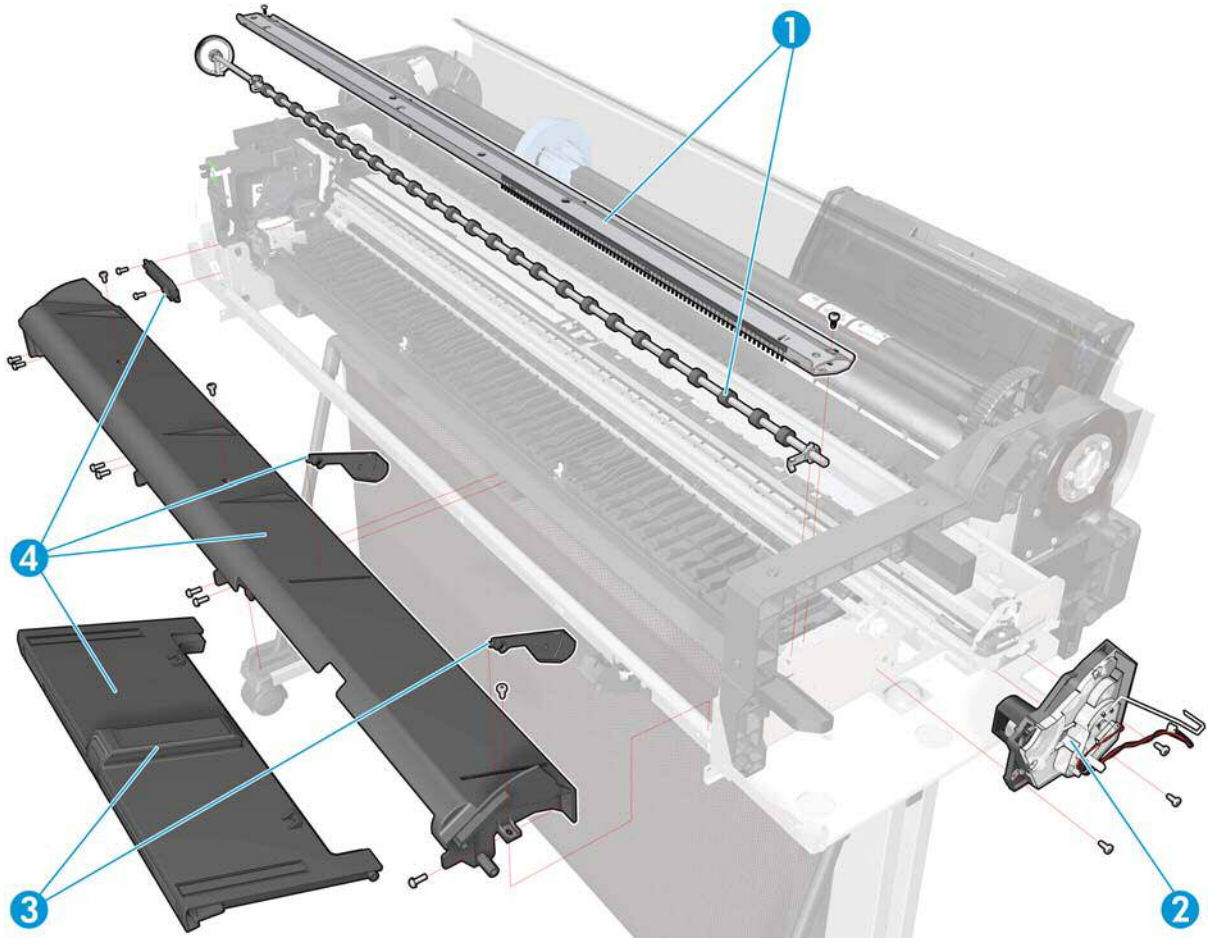
Encoder Strip kit



http://www.justmanuals.com

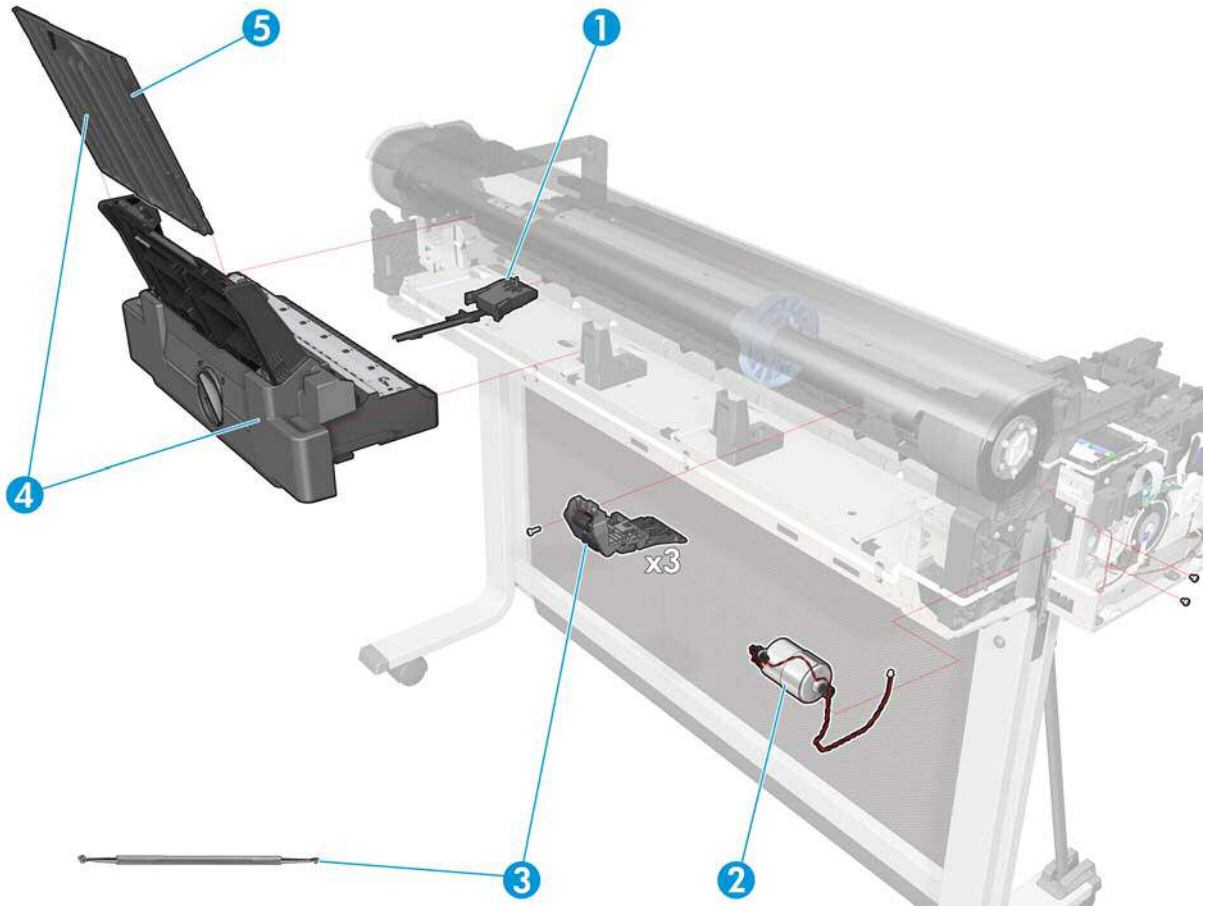
Paper path (front)

	HP part number	Part description	Removal and installation reference	Comments
1	CQ890-67034	Starwheel Assembly (24)	Starwheel Assembly on page 247	Includes the Output Shaft and instruction flier
	CQ893-67007	Starwheel Assembly (36)		
2	CQ890-67041	Right Gear Train Module	Right Gear Train Module on page 245	
3	CQ890-67019	Output Tray (Pro)	Output Tray on page 257	
	CQ891-67010	Output Tray (Basic)		
4	CQ891-67011	Output Platen (Basic)	Output Platen on page 263	The cutter rail is not a service part
	CQ890-67018	Output Platen (24-Pro)		
	CQ893-67005	Output Platen (36)		
	CQ893-67018	Output Tray Sensor without cable		CSR B; see Output Tray Sensor flier on page 363



Paper path (rear)

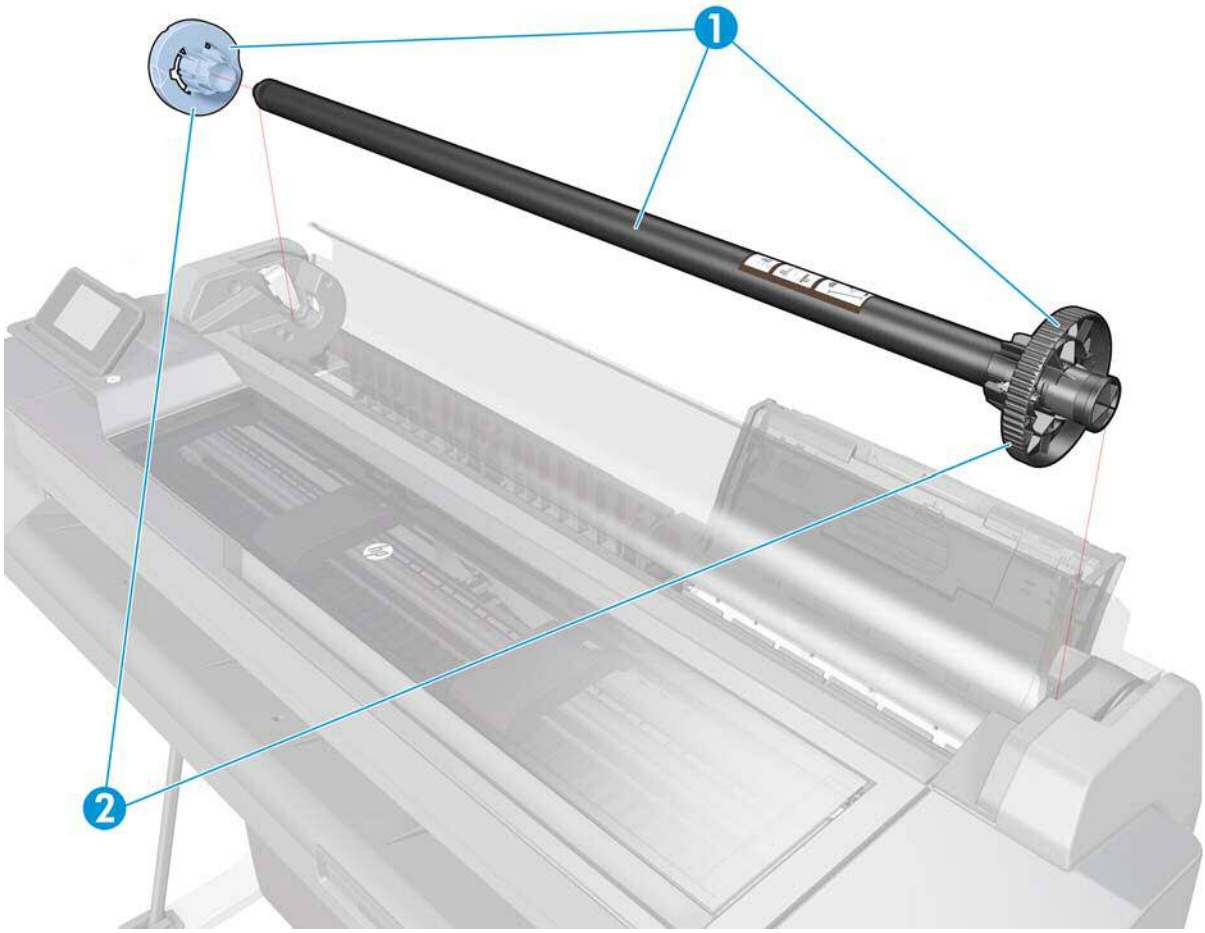
	HP part number	Part description	Removal and installation reference	Comments
1	CQ890-67032	Out-Of-Paper Sensor without cable	Out-Of-Paper Sensor on page 281	CSR B; see Out-Of-Paper Sensor flier on page 358
2	CQ890-67036	Paper Motor	Paper Motor on page 211	
3	CQ890-67060	Pinchwheels Assembly	Pinchwheels on page 304	Includes 3 pinchwheels, a tool to remove and mount them, and an instruction flier
4	CQ890-67007	Multi-Sheet Tray module	Multi-Sheet Tray Assembly on page 260	CSR A
5	CQ890-67047	Extension in Multi-Sheet Tray		CSR A; see Multi-Sheet Tray Extension flier on page 356



http://www.justmanuals.com

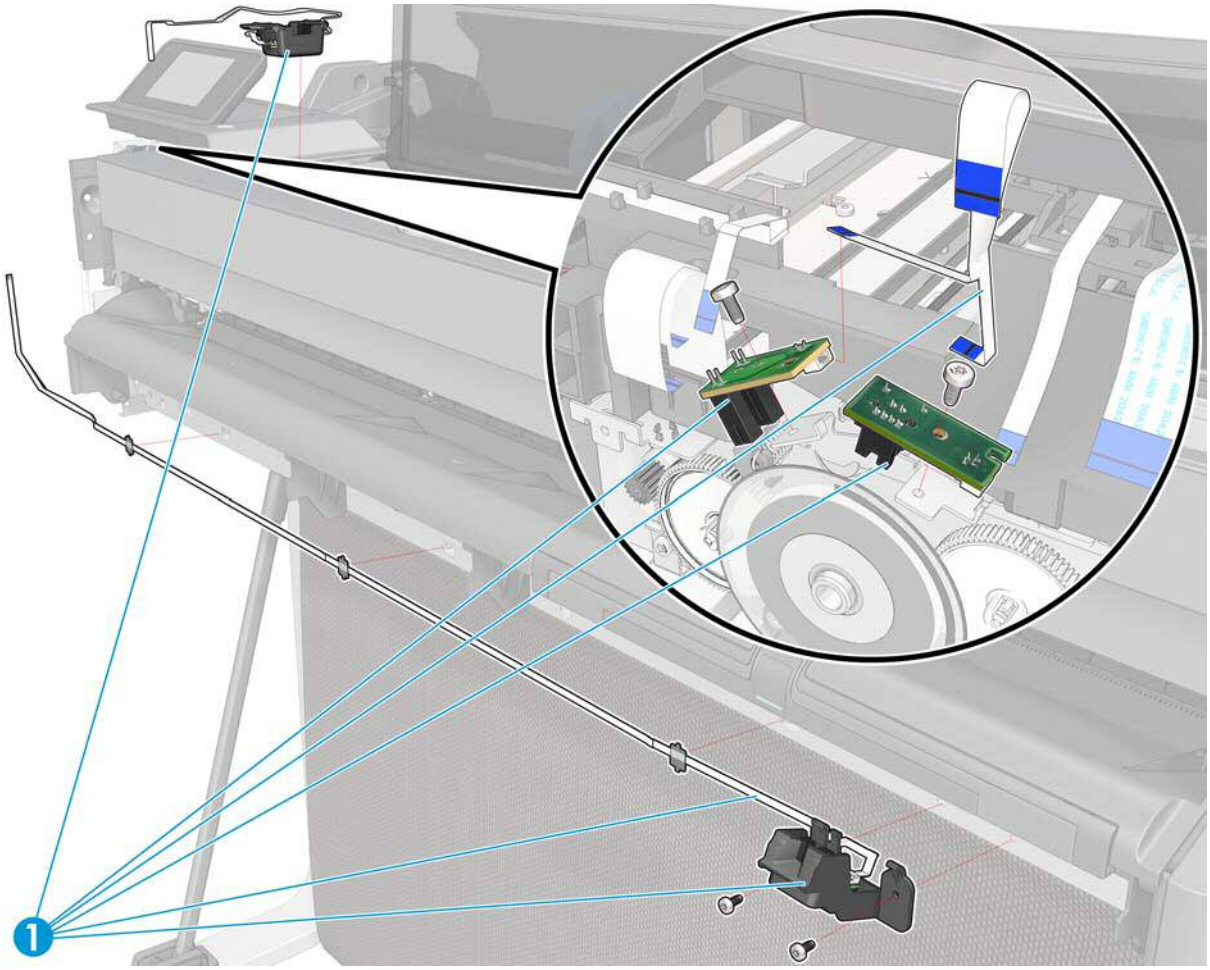
Roll supports

	HP part number	Part description	Removal and installation reference	Comments
1	CQ890-67043	Spindle module (24)		CSR A
	CQ893-67008	Spindle module (36)		
2	CQ893-67009	Spindle hubs		CSR A



Sensor Kit

	HP part number	Part description	Removal and installation reference	Comments
1	CQ890-67020	Sensor Kit	Encoder PCA and Index on page 213 Output Tray Sensor Assembly on page 286 Top Cover Sensor on page 188	Includes Encoder PCA + Index + cable, Output Tray Sensor + cable, and Top Cover Sensor



http://www.justmanuals.com

Miscellaneous parts

HP part number	Part description	Comments
CQ890-67021	Cables Service Kit	Includes FFC-Encoder-Rewind, FFC-Ink-Door, Pick Motor Encoder FFC, FFC-Control-Panel, FFC-Power Button, FFC - Paper-Feed-Sensors, Assy-FFC-Bundle-24, Assy-FFC-Bundle-36, Assy-FFC-OOPS, FFC-Top-Door, FFC-OUTPUTTRAYSENSOR-LEFT-24, FFC-OUTPUTTRAYSENSOR-LEFT-36
CQ890-67057	Labels Kit	CSR A. Includes ink supply label, serial label, nameplates, and ink supply labels.
	Lubrication Kit	
CQ891-60021	Power Cord: EU SV KIT	CSR A
		8120-6314 EU, Denmark, South Africa, Switzerland
		8120-8699 UK & Middle East
CQ891-60022	Power Cord: AMS SV KIT	CSR A
		8120-6313 US, Canada & Mexico
		8120-8367 Argentina
		8121-1081 Brazil
		8121-0514 Chile
CQ891-60023	Power Cord: APJ SV KIT	CSR A
		8120-8699 Singapore, HK, MY
		8121-1168 India
		8121-0664 Thailand & Philippines
		8120-6316 Japan
		8120-8373 China
		8121-0963 Taiwan
		8120-8441 Korea
		8120-6314 Indonesia & Vietnam
		8121-0870 Australia

5 Removal and installation

Parts in alphabetical order

Back Cover on page 163

Bundle Board on page 297

Bundle Board FFC cable on page 299

Carriage and Belt on page 236

Carriage Belt on page 243

Carriage Line Sensor on page 293

Carriage Motor on page 268

Central Cover on page 172

Cutter Assembly on page 272

Cutter Guide on page 279

Encoder Disk on page 217

Encoder PCA and Index on page 213

Encoder Strip on page 193

Front Cover on page 150

Front Panel on page 165

Front Panel Cable on page 171

Ink Cartridge Cover on page 156

Ink Cartridge Cover PCA Assembly on page 198

Left Cover on page 158

Left Roll Support on page 180

Left Spittoon on page 310

Main PCA on page 205

Multi-Sheet Tray Assembly on page 260

Multi-Sheet Tray Assembly Extensions on page 261

Out-Of-Paper Sensor on page 281

Out-Of-Paper Sensor Cable on page 284

Output Platen on page 263

Output Shaft on page 249

Parts in removal order

Top Cover on page 147

Front Cover on page 150

Right Cover on page 153

Ink Cartridge Cover on page 156

Left Cover on page 158

Roll Cover on page 160

Back Cover on page 163

Front Panel on page 165

Front Panel Cable on page 171

Central Cover on page 172

Upper-Roll Paper Guide on page 177

Left Roll Support on page 180

Right Roll Support on page 185

Top Cover Sensor on page 188

Top Cover Sensor Cable on page 191

Encoder Strip on page 193

Ink Cartridge Cover PCA Assembly on page 198

Power Supply on page 202

Main PCA on page 205

Paper Motor on page 211

Encoder PCA and Index on page 213

Encoder Disk on page 217

Trailing Cable on page 220

Service Station on page 227

Prime Pump on page 233

Carriage and Belt on page 236

Carriage Belt on page 243

Right Gear Train Module on page 245

http://www.justmanuals.com

Parts in alphabetical order

Output Tray on page 257

Output Tray Extender Sensor Cable on page 289

Output Tray Sensor Assembly on page 286

Paper Motor on page 211

Pinchwheels on page 304

Power Supply on page 202

Prime Pump on page 233

Right Cover on page 153

Right Gear Train Module on page 245

Right Roll Support on page 185

Roll Cover on page 160

Service Station on page 227

Starwheel Assembly on page 247

Top Cover on page 147

Top Cover Sensor on page 188

Top Cover Sensor Cable on page 191

Trailing Cable on page 220

Upper-Roll Paper Guide on page 177

Parts in removal order

Starwheel Assembly on page 247

Output Shaft on page 249

Output Tray on page 257

Multi-Sheet Tray Assembly on page 260

Multi-Sheet Tray Assembly Extensions on page 261

Output Platen on page 263

Carriage Motor on page 268

Cutter Assembly on page 272

Cutter Guide on page 279

Out-Of-Paper Sensor on page 281

Out-Of-Paper Sensor Cable on page 284

Output Tray Sensor Assembly on page 286

Output Tray Extender Sensor Cable on page 289

Carriage Line Sensor on page 293

Bundle Board on page 297

Bundle Board FFC cable on page 299

Pinchwheels on page 304

Left Spittoon on page 310

Introduction

This chapter is a step-by-step guide to the removal and installation of the key components of the printer. Use the illustrations for each procedure to identify the parts referred to in the text.

NOTE: Before using this chapter to remove and install a new component, always make sure that you have performed the relevant service test. If the test passes you will not need to replace the component.

NOTE: We recommend that, every time a part is removed, the Line Sensor and the Encoder Strip are cleaned. See Clean the Carriage Line Sensor on page 314 and Clean the Encoder Strip on page 315.

NOTE: There are no parts in this printer that require calibration after installation.

Safety precautions

Review the instructions identified by WARNING and CAUTION symbols before you service the printer. Follow these warnings and cautions for your protection and to avoid damaging the printer.

Serious shock hazard leading to death or injury may result if you do not take the following precautions:

- Switch the printer off and disconnect it from the power source prior to performing any maintenance.
- Prevent water or other liquids from running onto electrical components or circuits, or through openings in the module.

IMPORTANT: You are recommended to wear gloves when removing or installing any part, even if it is not mentioned in the removal or installation procedure.

Electrostatic Discharge (ESD) Precautions

To prevent damage to the printer's circuits from high-voltage electrostatic discharge (ESD):

1. Do not wear clothing that is subject to static build-up.
2. Do not handle integrated circuits (ICs) in carpeted areas.
3. Do not remove an IC or a Printed-Circuit Assembly (PCA) from its conductive foam pad or conductive packaging until you are ready to install it.
4. Ground (earth) your body while disassembling and working on the printer.
5. After removing a cover from the printer, attach an earthing (ground) lead between the PCA common and earth (ground). Touch all tools to earth (ground) to remove static charges before using them on the printer.
6. After removing any PCA from the printer, place it on a conductive foam pad or into its conductive packaging to prevent ESD damage to any ICs on the PCA.

http://www.justmanuals.com

Required tools

All the special tools and equipment required to disassemble, service, and repair the printer are provided in the Toolkit P/N Q6683-67001. Some tools can be ordered separately from the toolkit.

The Toolkit contains the following tools:

Description/Comments	HP part number
Alcohol	Q6675-60091
Cleaning Cloth	9300-2531
Protective Plastic Gloves	Q6675-60035
Tweezers	Q6675-60037
Flat screwdriver	
Torx screwdriver 6, 10	
Pliers	

You may also need the following standard hand tools:

Description/Comments	Size
Long Torx Screwdriver	1/4 inch drive
Torx bit (75 mm)	15
	20

Customer Self Repair parts

Some printer parts are designated Customer Self Repair (CSR) parts, which means that a faulty part can be replaced by the customer. Non-CSR parts need to be replaced by an engineer. There are two categories of CSR parts:

- CSR A: Customer self-repair is mandatory, as mentioned in the printer's warranty statement. If HP is asked to replace such parts, the customer will be charged for travel and labor costs. Parts should be replaceable by end users (customers) from a mechanical perspective within 5 minutes, with simple or no tools required. Examples include spindles and cartridges.
- CSR B: Parts are easy to replace, but some knowledge of the printer and technical skills may be required. The customer can decide whether to replace the part or to call for an engineer.

The CSR parts are listed below.

Part number	Description	CSR type	Flier
CQ890-67050	Front Cover (24)	CSR A	Yes
CQ894-67001	Front Cover (36)	CSR A	Yes
CQ890-67046	Ink Cartridge Cover	CSR A	Yes
CQ890-67057	Labels Kit	CSR A	No
CQ890-67007	Multi-Sheet Tray Assembly	CSR A	No
CQ890-67047	Multi-Sheet Tray Extensions	CSR A	Yes
CQ891-60021	Power Cords EU SV Kit	CSR A	No
CQ891-60022	Power Cords AMS SV Kit	CSR A	No
CQ891-60023	Power Cords APJ SV Kit	CSR A	No
C1Q10A	Printhead	CSR A	Yes
CQ890-67043	Spindle (24)	CSR A	No
CQ893-67008	Spindle (36)	CSR A	No
CQ893-67009	Spindle Hubs	CSR A	No
CQ890-67052	Stand Assembly (24)	CSR A	Yes
CQ890-67053	Stand Assembly (36)	CSR A	Yes
CQ890-67054	Stand Hardware Kit	CSR A	No
CQ891-67010	Output Tray (Basic)	CSR B	Yes
CQ890-67019	Output Tray (Pro)	CSR B	Yes
CQ890-67032	Out-of-Paper Sensor (OOPS)	CSR B	Yes
CQ893-67018	Output Tray Sensor	CSR B	Yes

Copies of most of the fliers can be found in the appendices to this manual: see CSR fliers on page 351.

http://www.justmanuals.com

For further information

- CSR Corporate Standards: http://standards.corp.hp.com/smc/hpstd/AHP0001501.htm
- CSR Web site: http://www.hp.com/go/csrparts/
- CSR Parts Availability (EasiTool): https://easitool.atlanta.hp.com/
- HP Parts Page: http://partpage.corp.hp.com/default.asp

Videos available

The following videos are available in the HP Services Media Library:

- Public, available to customers: Ink Cartridge Cover, Out-Of-Paper Sensor, Output Tray, Output Tray Sensor.
- For service technicians only: Carriage, Carriage Motor, Central Cover, Cutter, Front Panel, Main PCA, Output Platen, Pinchwheels, Starwheels and Output Shaft, Trailing Cable.

HP Services Media Library

- HP intranet access: http://thesml.hp.com/
- HP external/Customer Self Repair: http://www.hp.com/go/sml
- HP Partner via regional Partner portal: http://www.hp.com/go/psml

Recommended checks after replacing parts

After replacing a part, we recommending checking the status of the printer as follows:

1. Turn on the printer and check that there is no system error.
2. Print the print-quality diagnostic report on an A4 or US Letter sheet of paper and check that there are no problems. See General print-quality troubleshooting on page 83.
3. Load a roll of paper and perform some form feeds and cuts.

For some parts, further actions are required:

- After replacing the Main PCA, check for firmware updates and set up Web Services.
- After replacing the Service Station or Carriage Assembly, perform the appropriate preventive maintenance reset. See Extended Support menu on page 124.

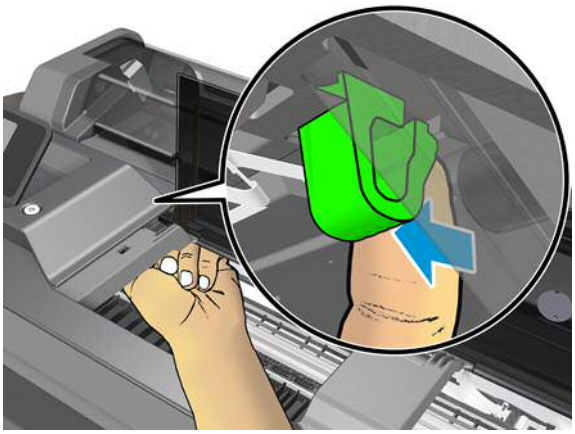
Top Cover

NOTE: The Top Cover is also known as the Central Window.

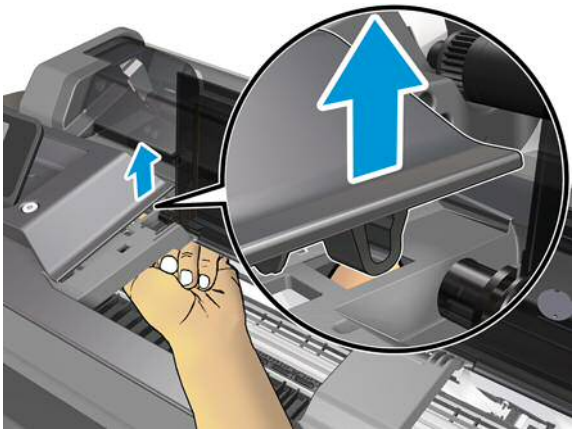
1. Open the Top Cover.



2. Unclip the indicated clip of the Front Panel.

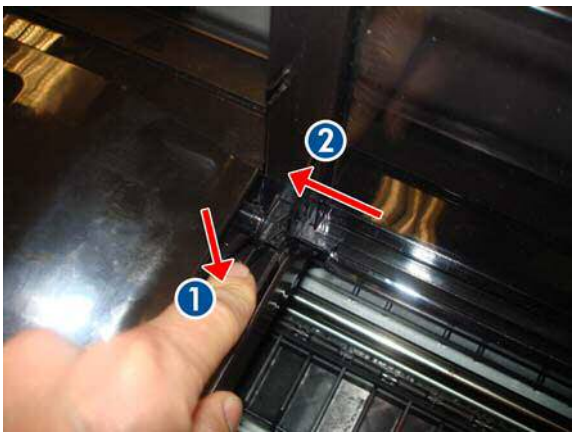


3. Push up the clip as shown below.

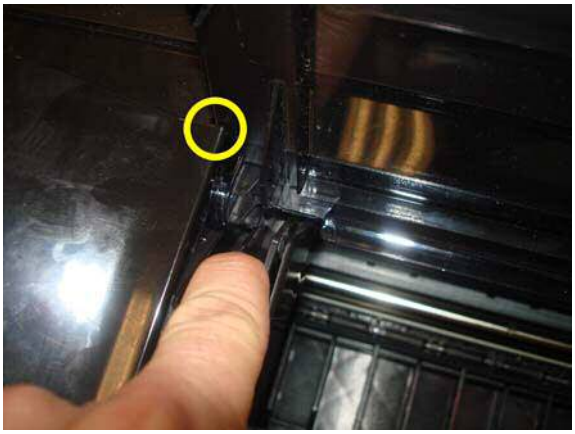


http://www.justmanuals.com

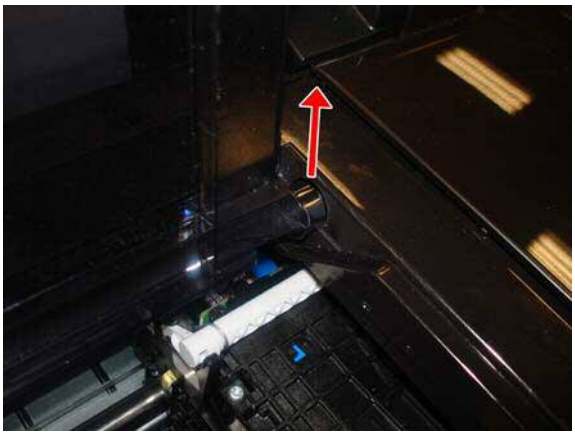
4. Press down the flange of the Top Cover to slide it to the left.



5. Make sure you have slid the Top Cover as far as possible to the left.



6. Move the right side of the Top Cover upwards.



7. Remove the Top Cover.



8. Remember to replace the Front Panel clip that you removed earlier.

http://www.justmanuals.com

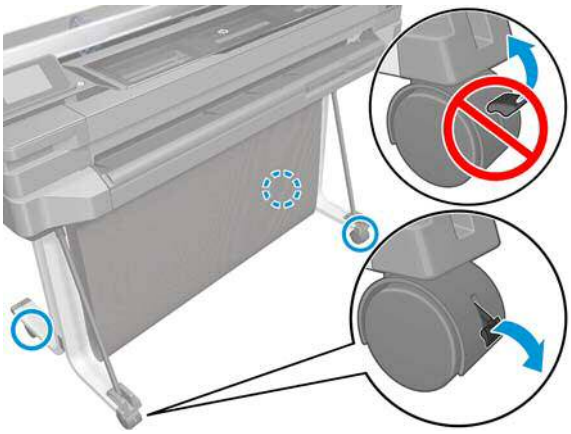
Front Cover

Removal

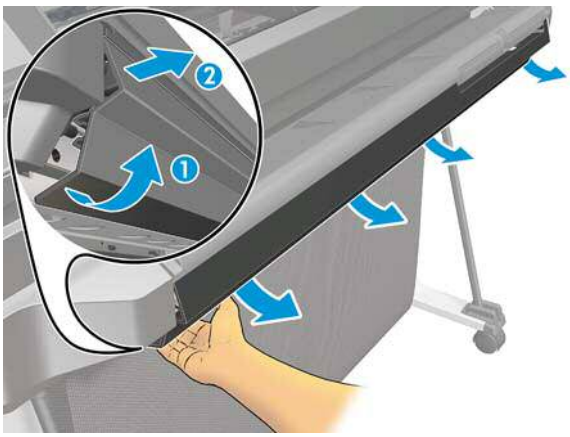
1. Switch off the printer.



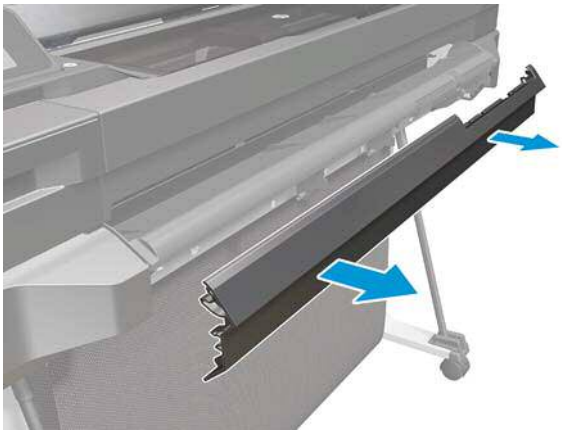
2. Lock the four wheels.



3. Unclip the lower part of the Front Cover (1) and unclip the upper part (2) from locations along the length of the cover.
   - 24 inch printer: 3 clips from the bottom and 3 from the top
   - 36 inch printer: 4 clips from the bottom and 4 from the top

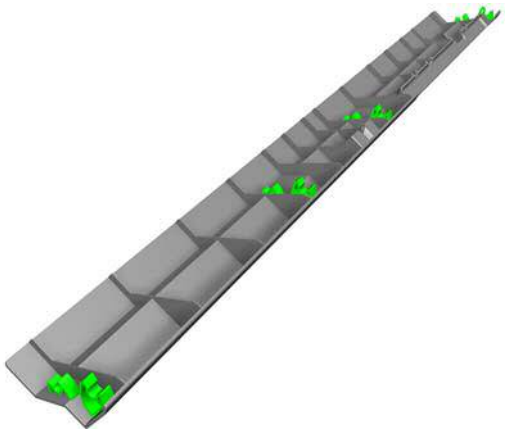


4. Remove the Front Cover.

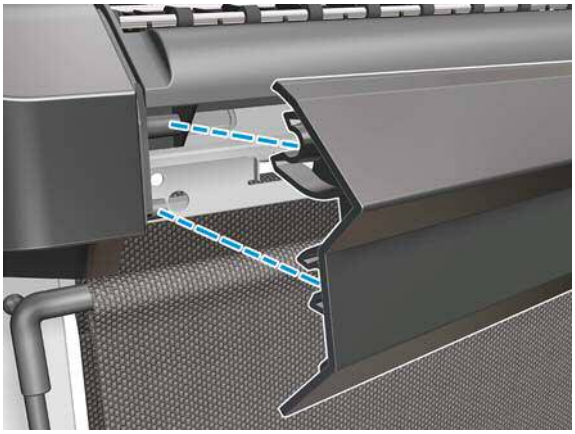


Installation

1. The underside of the Front Cover
   - 24 inch printer: 6 clips
   - 36 inch printer: 8 clips

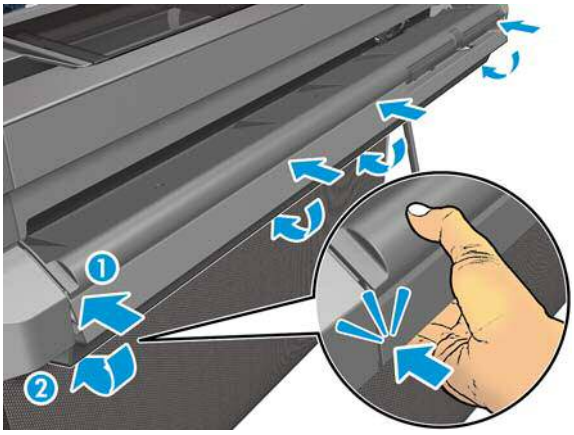


2. Detail showing where the clips must be attached



http://www.justmanuals.com

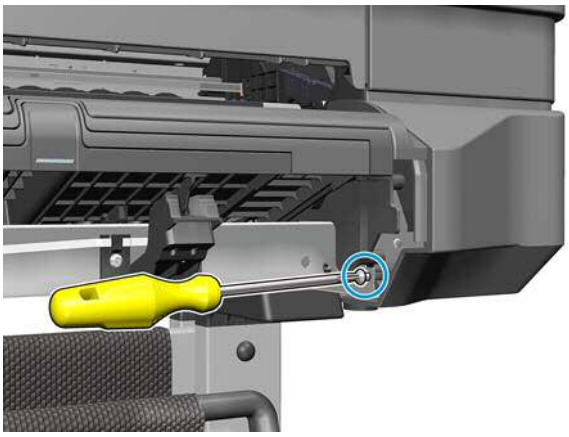
3. Snap the Front Cover into place, making sure that each of the clips is fully engaged.



Right Cover

Removal

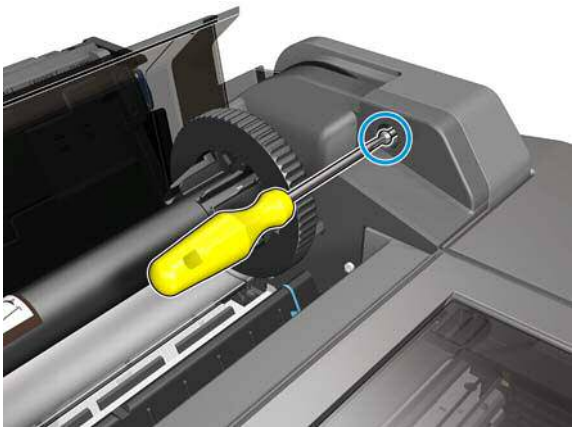
1. Switch off the printer and remove the power cable.
2. Remove the Front Cover, see Front Cover on page 150.
3. Remove one T-20 screw.



4. Open the Roll Cover.



5. Remove one T-20 screw.



http://www.justmanuals.com

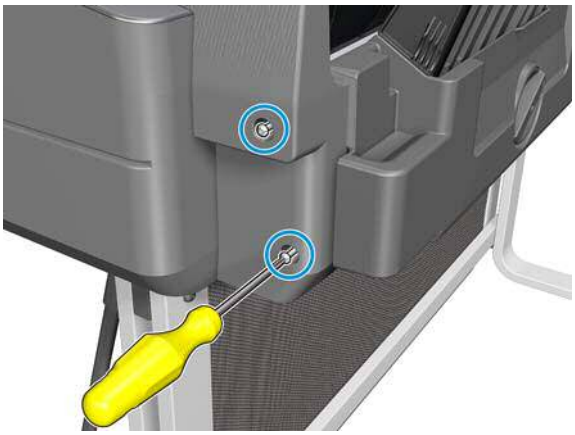
6. Open the Top Cover.



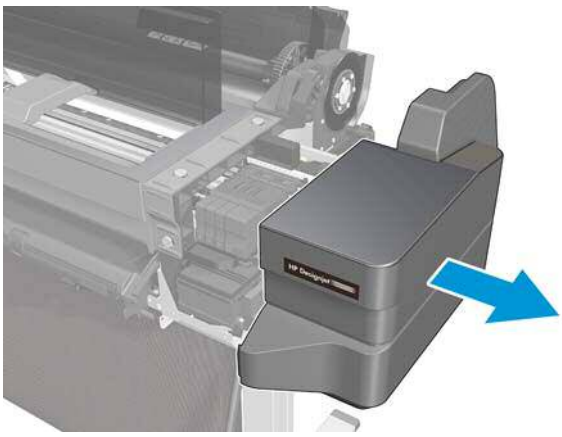
7. Remove one T-20 screw.



8. Remove two T-20 screw.



9. Remove the Right Cover.

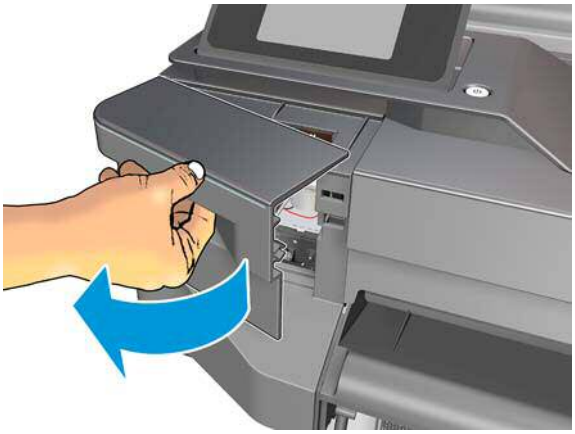


http://www.justmanuals.com

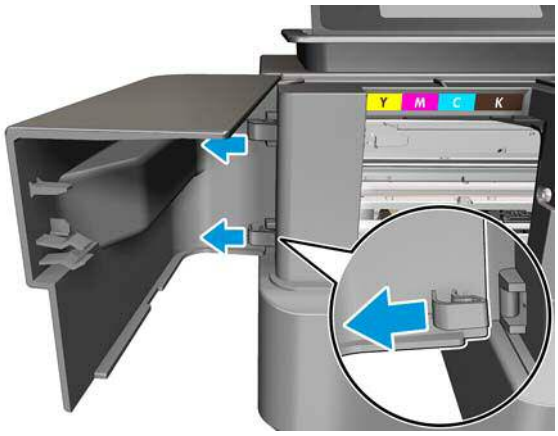
Ink Cartridge Cover

Removal

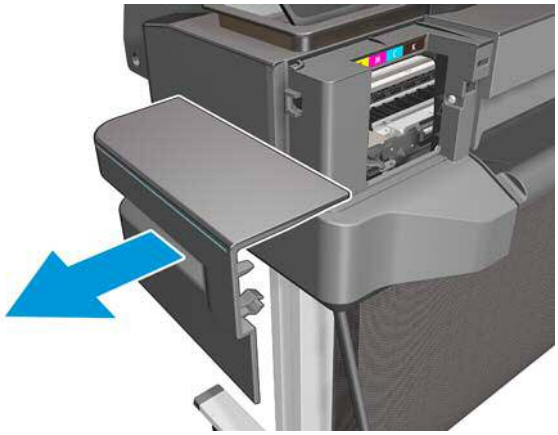
1. Open the Ink Cartridge Cover 90°.



2. Detach the Ink Cartridge Cover with care, because the clips are quite hard.

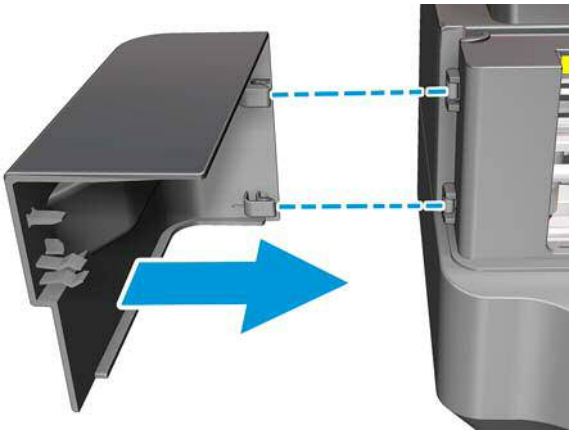


3. Remove the Ink Cartridge Cover.



Installation

- When installing the Ink Cartridge Cover, make sure that the hinges are correctly engaged.

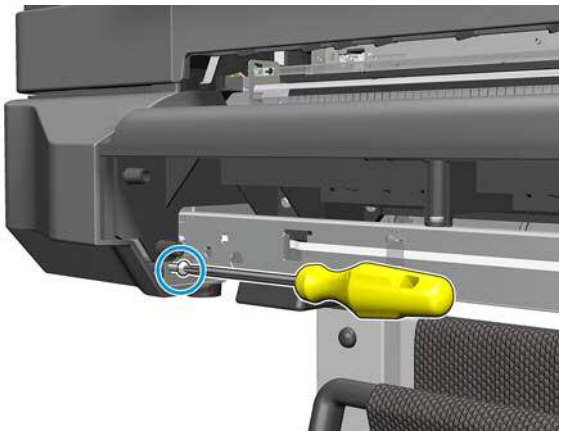


http://www.justmanuals.com

Left Cover

Removal

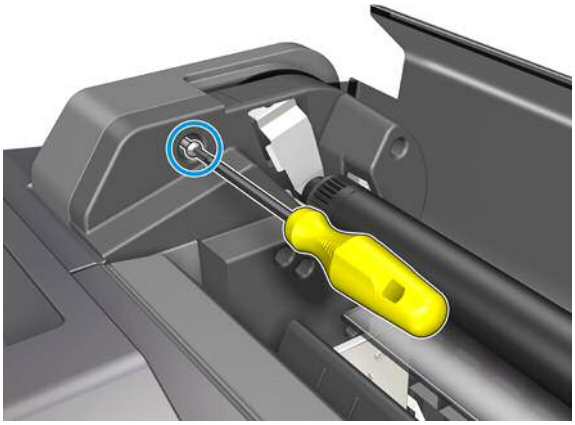
1. Switch off the printer and remove the power cable.
2. Remove the Front Cover, see Front Cover on page 150.
3. Remove the Ink Cartridge Cover, see Ink Cartridge Cover on page 156.
4. Remove one T-20 screw.



5. Open the Roll Cover.



6. Remove one T-20 screw.



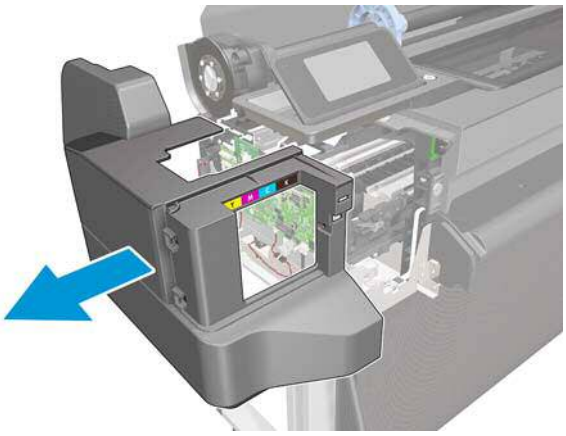
7. Remove one T-20 screw.



8. Remove two T-20 screws.



9. Remove the Left Cover.



Installation

▲ When installing the Left Cover, take care not to disconnect or damage the Front Panel cables.

http://www.justmanuals.com

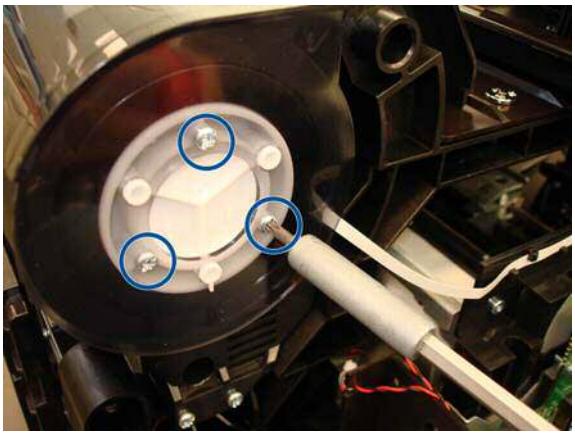
Roll Cover

Removal

1. Switch off the printer and remove the power cable.
2. Remove the Front Cover, see Front Cover on page 150.
3. Remove the Ink Cartridge Cover, see Ink Cartridge Cover on page 156.
4. Remove the Left Cover, see Left Cover on page 158.
5. Remove the Right Cover, see Right Cover on page 153.
6. Close the Roll Cover.



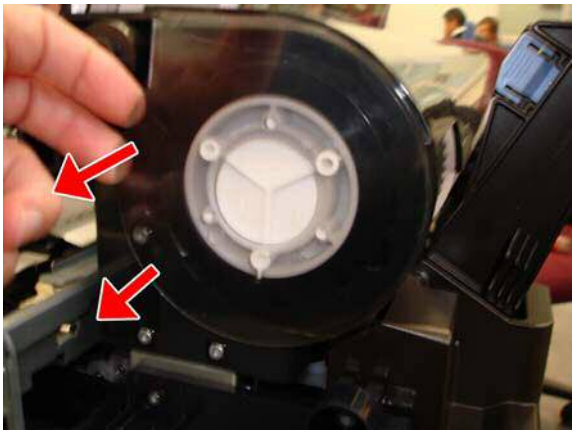
7. Remove three T-15 screws from the left side of the Roll Cover.



8. Remove three T-15 screws from the right side of the Roll Cover.

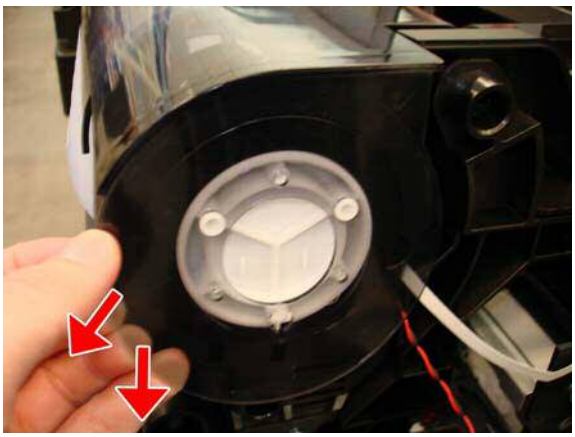


9. Unclip and detach the left side of the Roll Cover, bending it carefully.



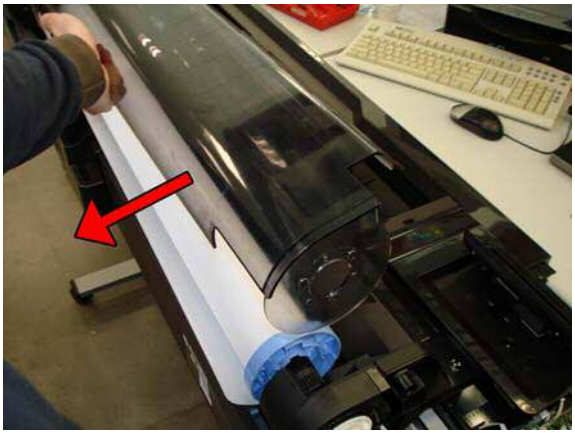
10. Unclip and detach the right side of the Roll Cover, bending it carefully.

CAUTION: Take care not to damage the Rewinder cables.



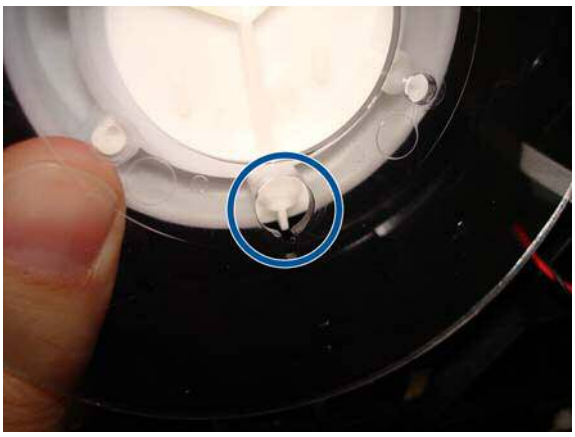
http://www.justmanuals.com

11. Remove the Roll Cover.



Installation

- When installing the Roll Cover, ensure that the key is correctly installed when attaching the Roll Cover to the Gear Damper.



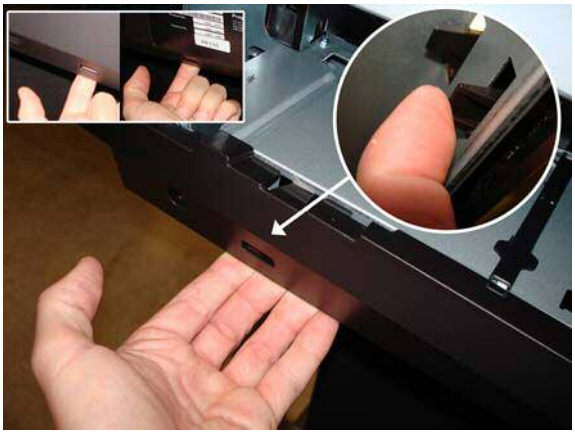
Back Cover

Removal

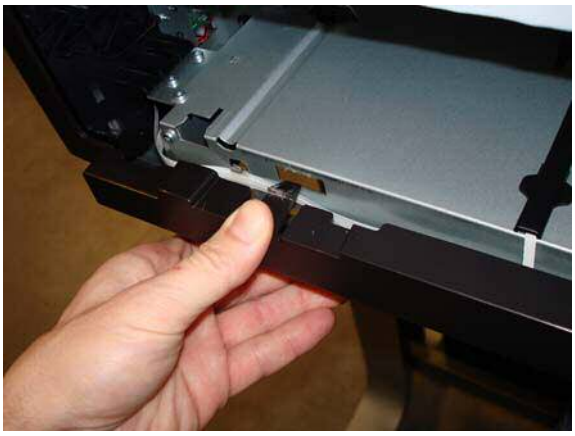
1. Switch off the printer and remove the power cable.
2. Remove the Multi-Sheet Tray, see Multi-Sheet Tray Assembly on page 260.
3. Remove four T-10 screws.



4. Unclip the four bottom clips.

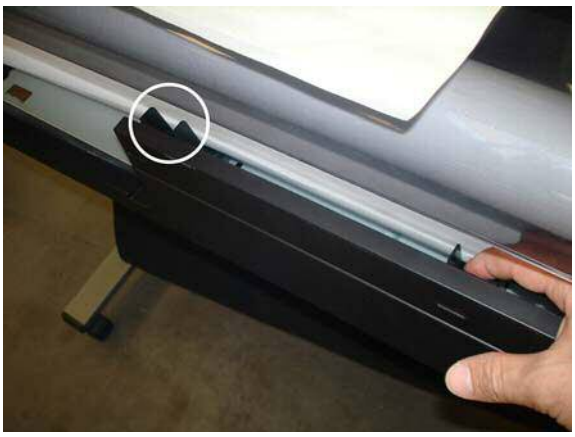


5. Unclip the left top clip.



http://www.justmanuals.com

6. Unclip the two top clips.

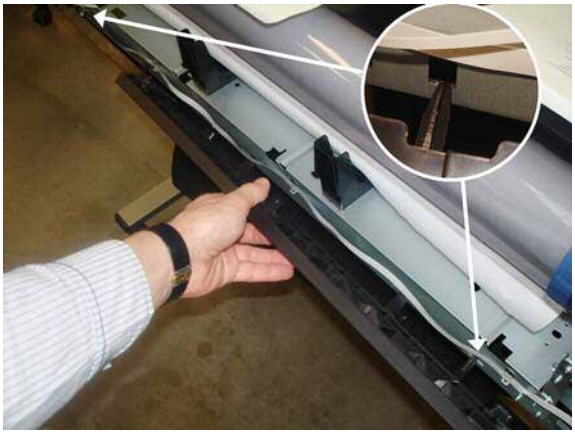


7. Remove the Back Cover.



Installation

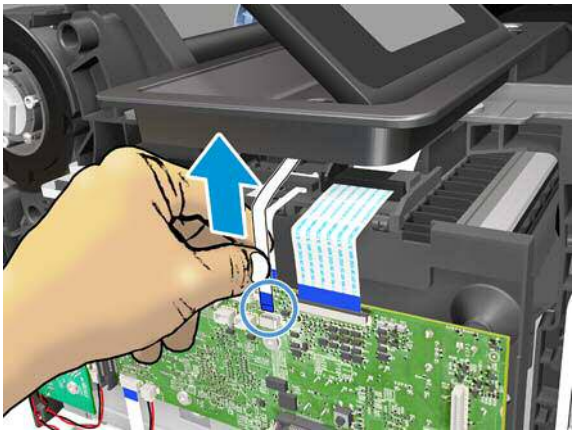
▲ When installing the Back Cover, take care not to disconnect or damage the cables at the rear.



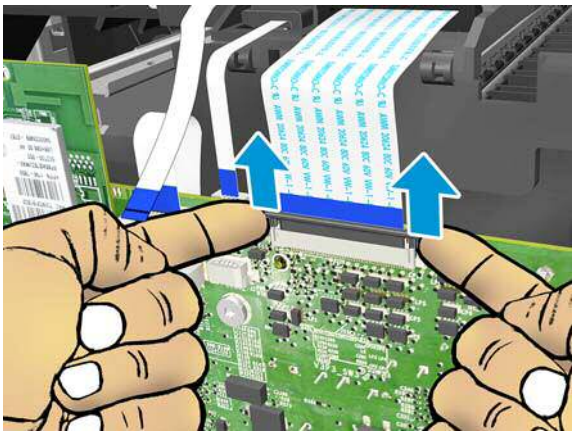
Front Panel

Removal

1. Switch off the printer and remove the power cable.
2. Remove the Front Cover, see Front Cover on page 150.
3. Remove the Ink Cartridge Cover, see Ink Cartridge Cover on page 156.
4. Remove the Left Cover, see Left Cover on page 158.
5. Disconnect the Power Button FFC.

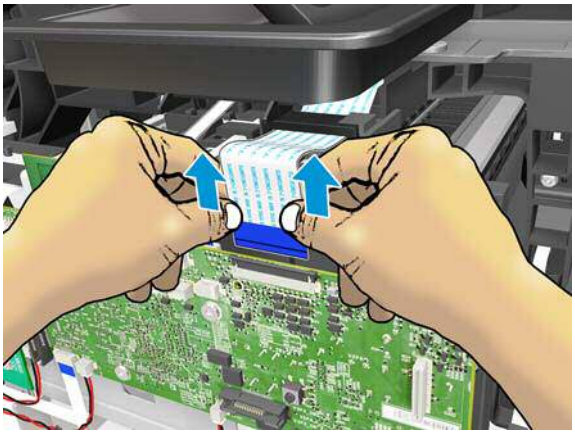


6. Hold the connector latch in these two positions and push it up to remove the FFC cable.

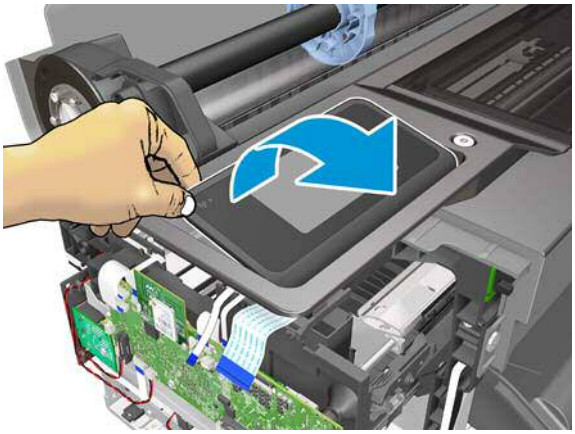


http://www.justmanuals.com

7. Take care! Do not pull up so hard that it damages the connector latch as you remove the cable.



8. Move up the Front Panel if it is in the flat position.



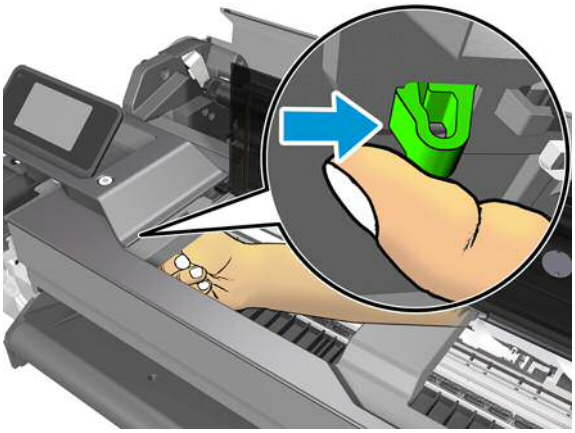
9. Remove one T–20 screw.



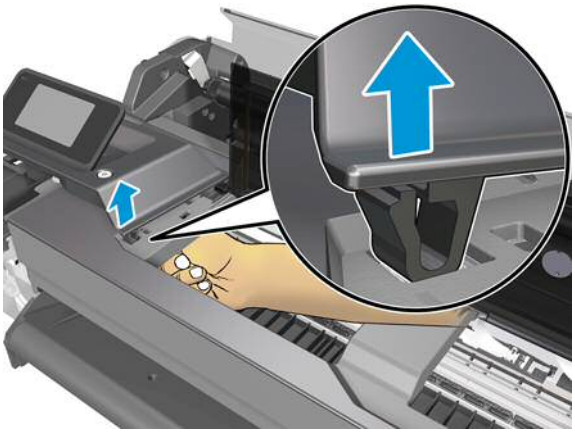
10. Open the Top Cover.



11. Unclip the clip.

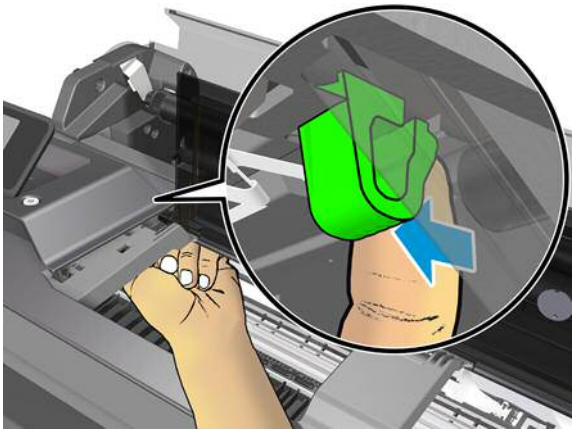


12. Push up after unclipping.

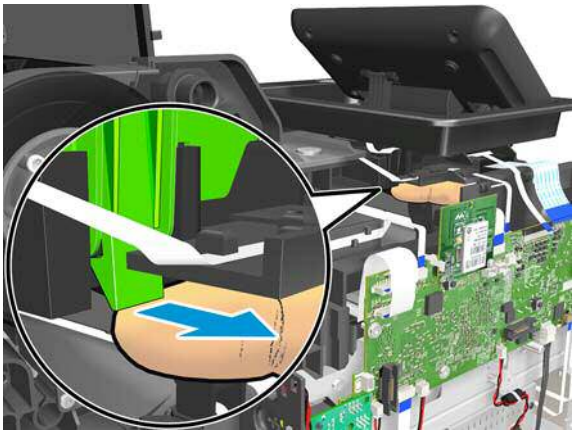


http://www.justmanuals.com

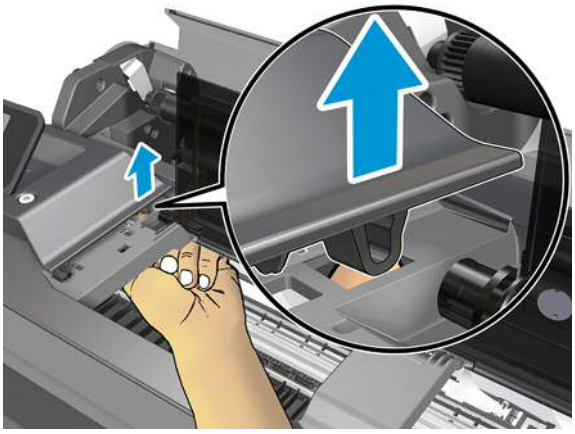
13. Unclip the clip indicated here.



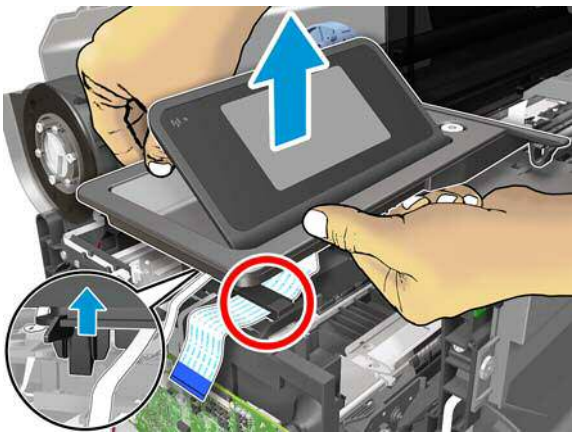
14. Unclip the clip indicated here.



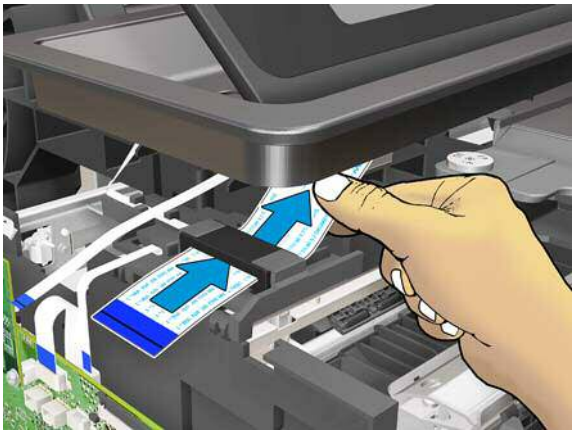
15. Push up after unclipping.



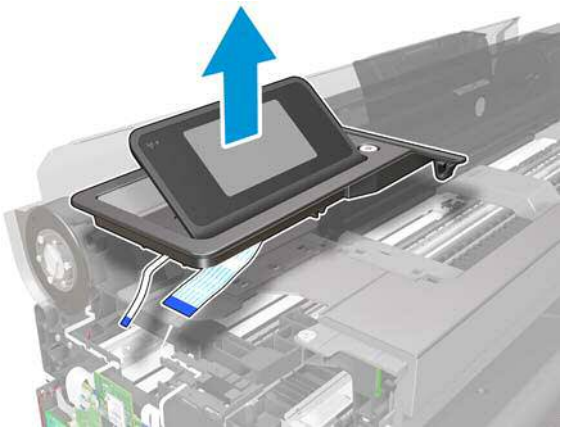
16. Slide up the Front Panel carefully, taking care not to damage the flat cable attached to the ferrite.



17. Remove the flat cable from the ferrite.



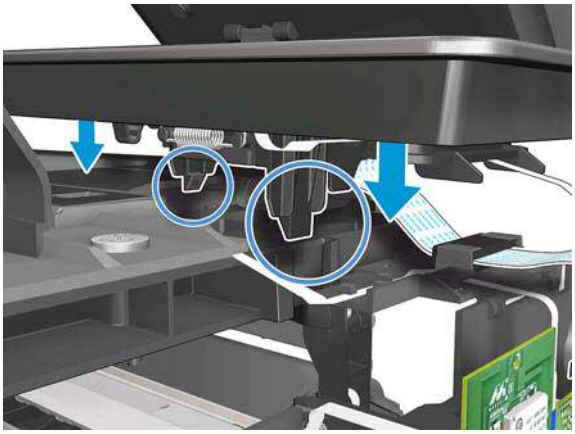
18. Remove the Front Panel.



http://www.justmanuals.com

Installation

1. When you install the Front Panel, be careful to insert the indicated parts inside.



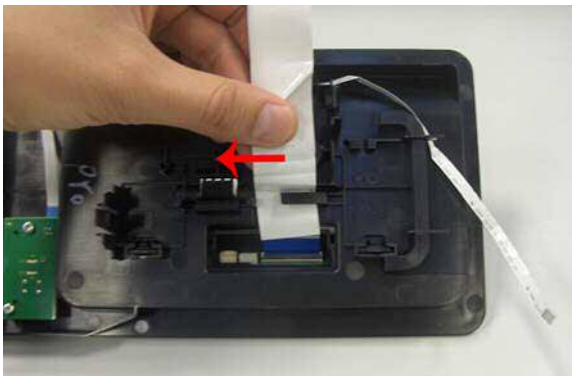
2. If the Front Panel cable is not correctly connected, the printer can sometimes start up with colors that are different from the normal colors (orange, blue), as shown below.



Front Panel Cable

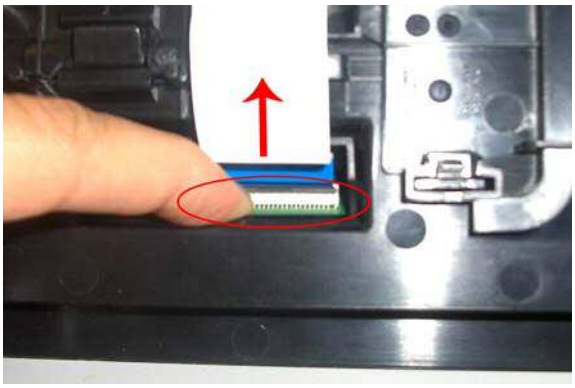
Removal

1. Switch off the printer and remove the power cable.
2. Remove the Front Panel, see Front Panel on page 165.
3. Unhook the Front Panel FFC from the retaining clip.

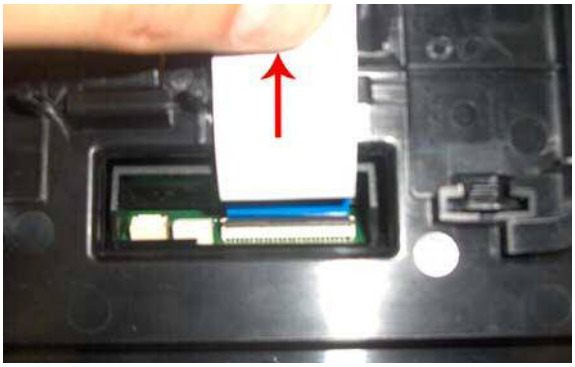


4. Push up the Front Panel FFC connector flap.

CAUTION: Be careful not to break this flap



5. Remove the Front Panel FFC from its assembly by pushing it up.

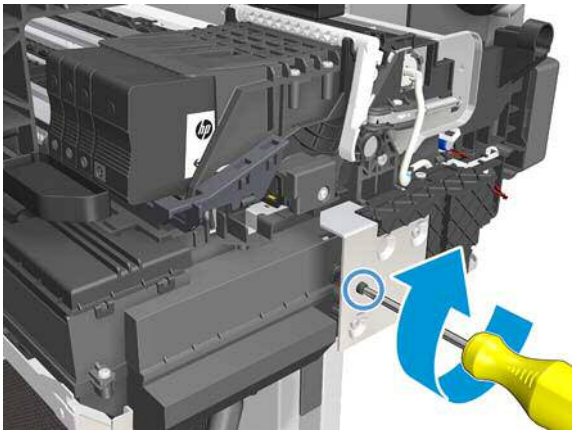


http://www.justmanuals.com

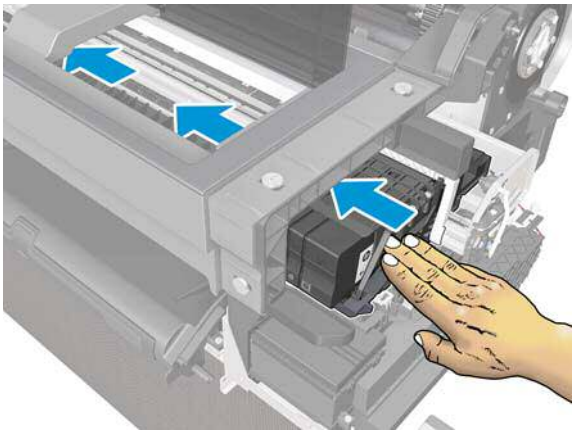
Central Cover

Removal

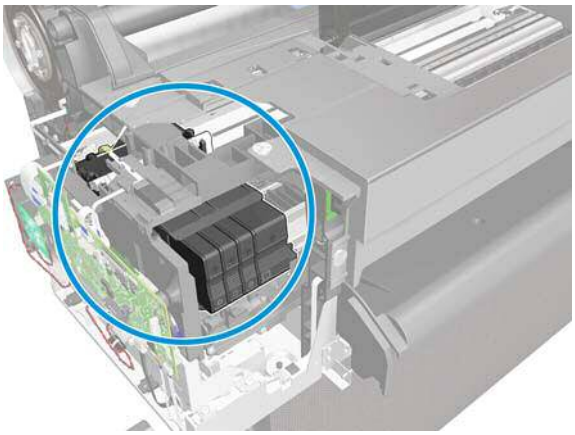
1. Switch off the printer and remove the power cable.
2. Remove the Front Cover, see Front Cover on page 150.
3. Remove the Ink Cartridge Cover, see Ink Cartridge Cover on page 156.
4. Remove the Left Cover, see Left Cover on page 158.
5. Remove the Right Cover, see Right Cover on page 153.
6. Remove the Front Panel, see Front Panel on page 165.
7. Uncap the Carriage.



8. Move the Carriage to the left.



CAUTION: Make sure the Carriage is positioned at the far left, so that the Trailing Cable does not become damaged.

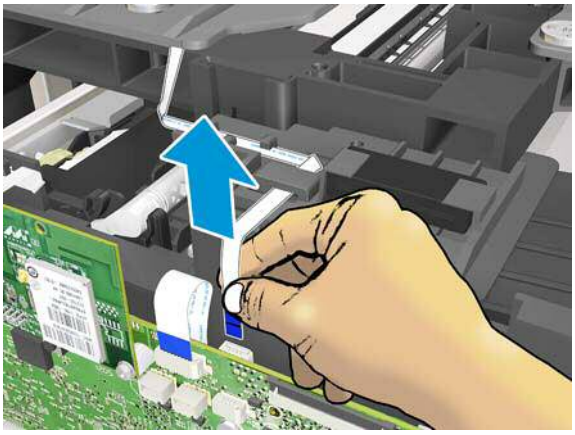


9. Close the Top Cover.

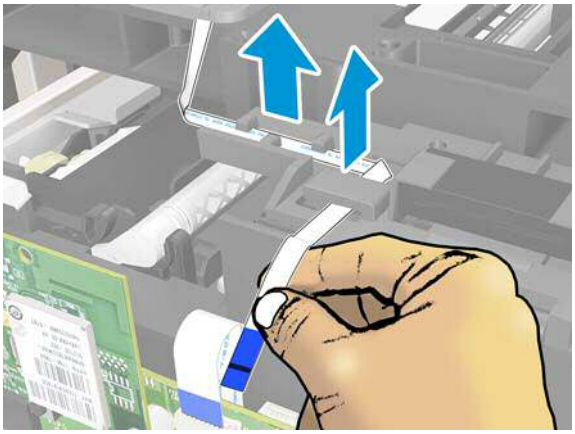


http://www.justmanuals.com

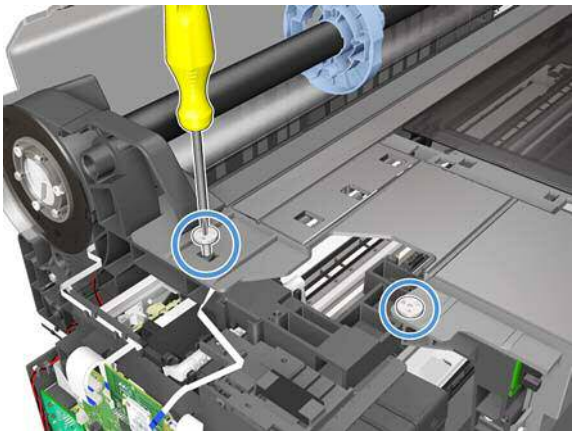
10. Ensure that the flat cable shown here is disconnected.



11. Unroute the flat cable.



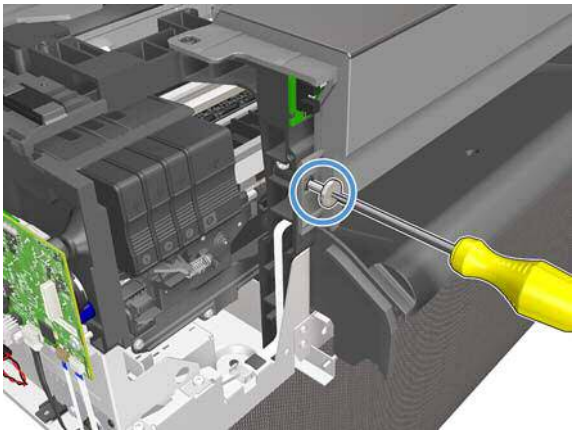
12. Remove two T-15 screws from the left side.



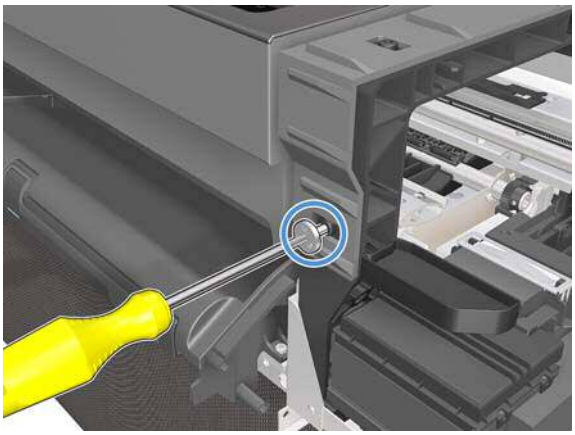
13. Remove two T-15 screws from the right side.



14. Remove one T-15 screw from the left side.

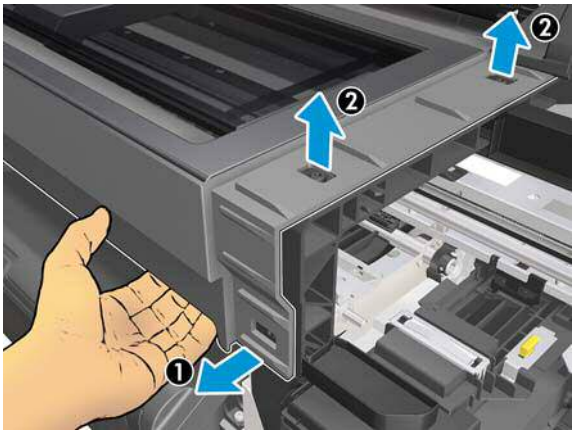


15. Remove one T-15 screw from the right side.



http://www.justmanuals.com

16. Unclip it from both sides.

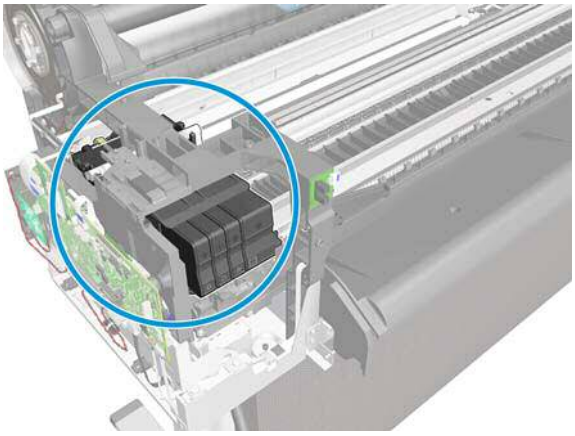


17. Remove the Central Cover.



Installation

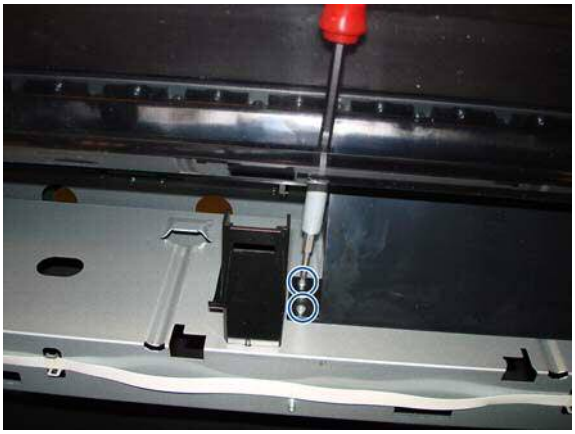
▲ **VERY IMPORTANT:** Before mounting the Central Cover, make sure that the Carriage is located at the extreme left.



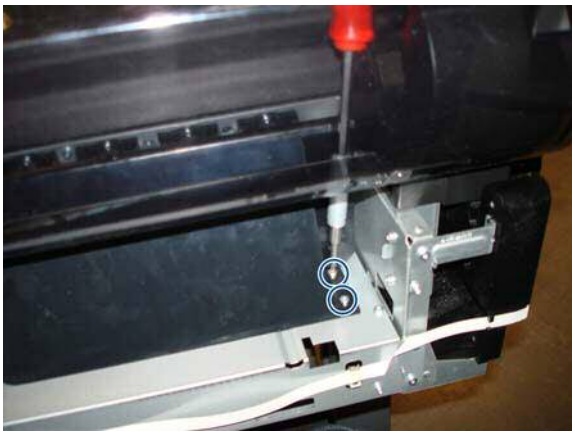
Upper-Roll Paper Guide

Removal

1. Switch off the printer and remove the power cable.
2. Remove the Back Cover, see Back Cover on page 163.
3. Remove the Roll Cover, see Roll Cover on page 160.
4. Remove the Spindle.
5. Remove two T-10 screws.



6. Remove two T-10 screws.



http://www.justmanuals.com

7. Move up the Upper-Roll Paper Guide to detach the pin.



8. Slide the Upper-Roll Paper Guide to the left to release both pins from the holes.



9. Close the Roll Cover.



10. Rotate up the Upper-Roll Paper Guide.



11. Rotate down the Upper-Roll Paper Guide.



12. Remove the Upper-Roll Paper Guide.

NOTE: There are two brackets for the Back Cover that are screwed onto the Multi-Sheet Tray, which do not need to be removed.



Installation

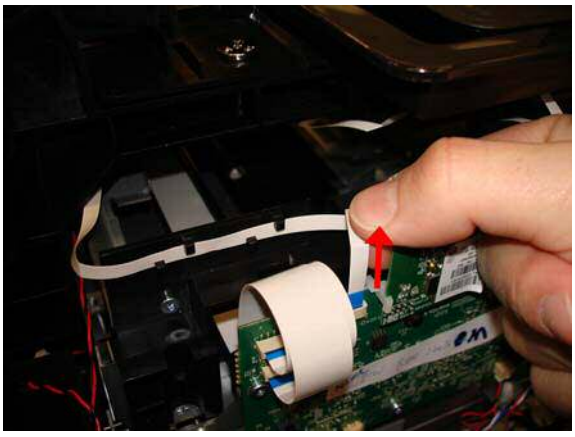
▲ The first step is to insert the two pins at the left.

http://www.justmanuals.com

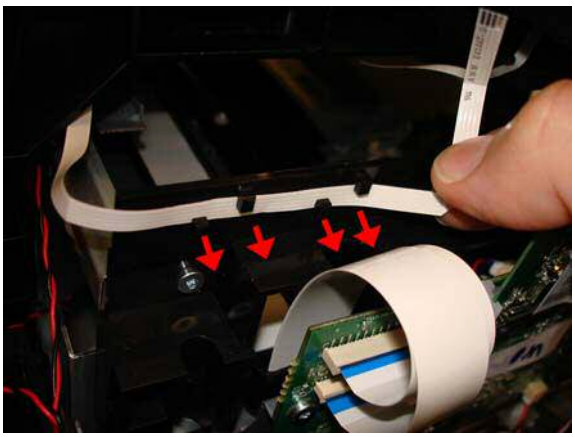
Left Roll Support

Removal

1. Switch off the printer and remove the power cable.
2. Remove the Front Cover, see Front Cover on page 150.
3. Remove the Ink Cartridge Cover, see Ink Cartridge Cover on page 156.
4. Remove the Left Cover, see Left Cover on page 158.
5. Remove the Right Cover, see Right Cover on page 153.
6. Remove the Back Cover, see Back Cover on page 163.
7. Remove the Spindle.
8. Remove the Roll Cover, see Roll Cover on page 160.
9. Remove the Upper-Roll Paper Guide, see Upper-Roll Paper Guide on page 177.
10. Disconnect the flat cable.

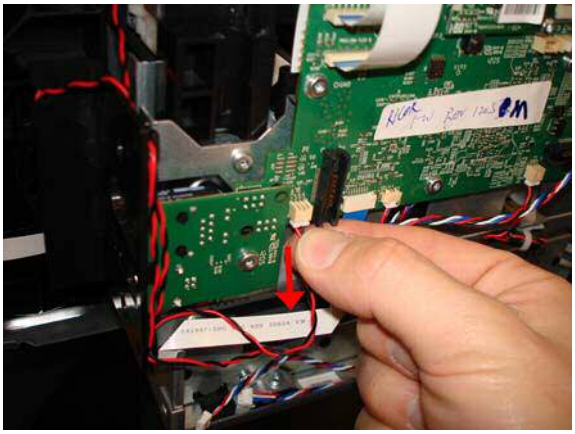


11. Detach the flat cable.

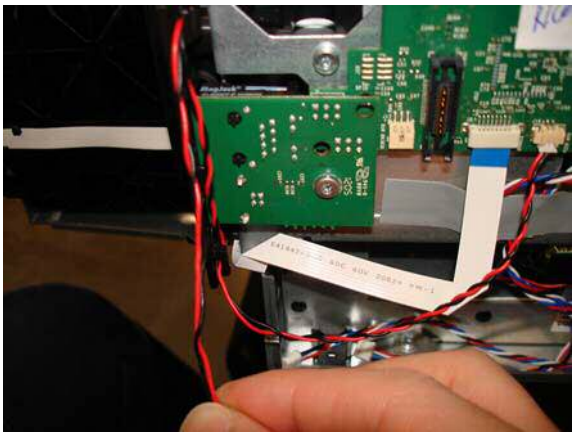


12. Disconnect the cable.

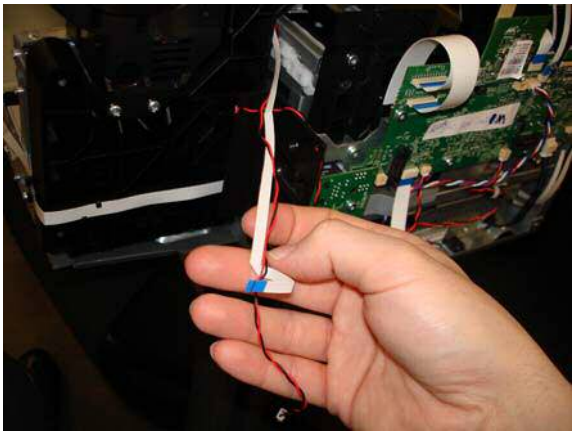
CAUTION: Take care, because the small connector is easy to break.



13. Detach the cable from the 3 clips of the LAN Panel USB.



14. Make sure both cables are free.

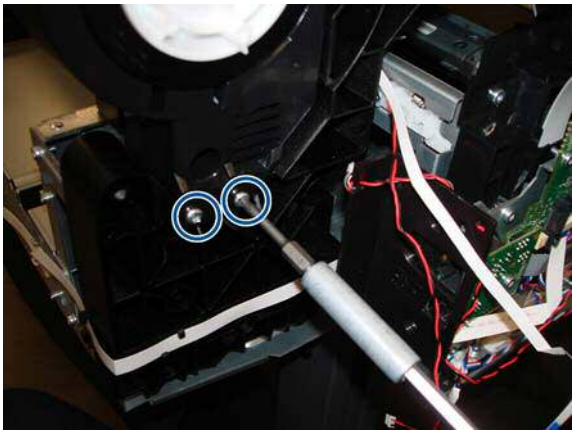


http://www.justmanuals.com

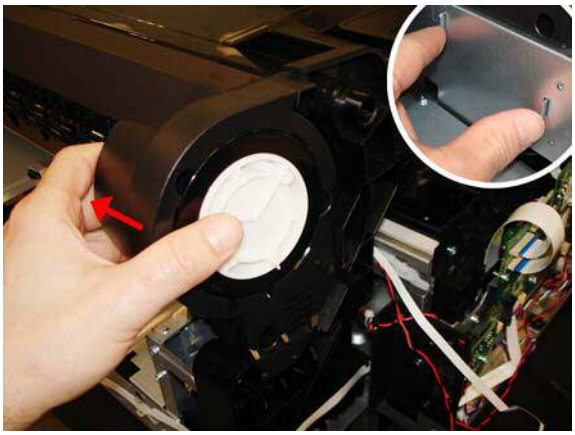
15. Remove three T-10 screws.



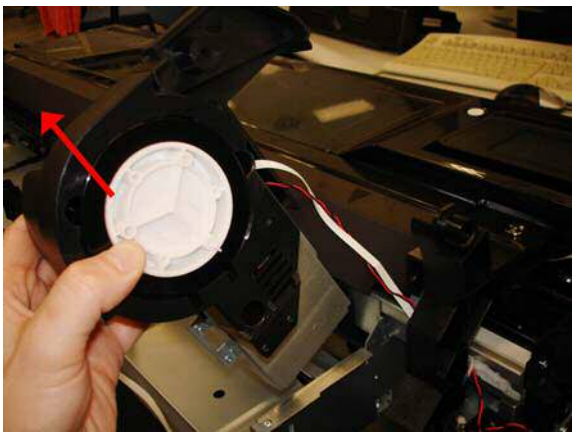
16. Remove two T-10 screws.



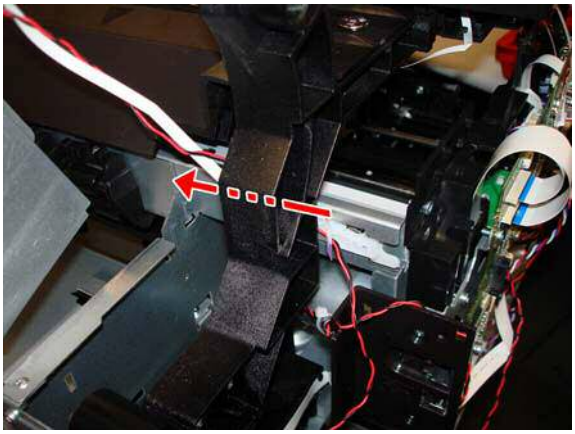
17. Rotate the Cover Left Roll Support to the left a little to detach it from the bracket.



18. Remove the Left Roll Support, taking care not to damage the cables.

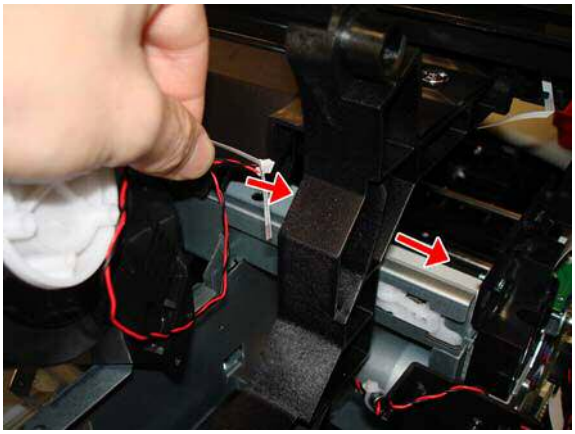


19. Pass the cables through the arch.



Installation

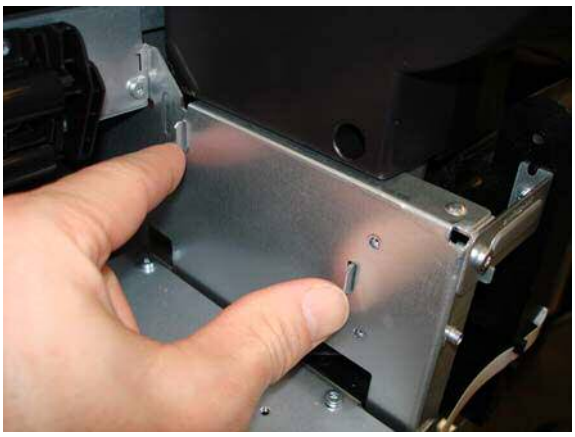
1. When mounting the Left Roll Support, make sure to pass both cables through the arch.



NOTE: Be careful with the routing, make sure it is the same as when the cables were removed. Check that it does not obstruct any moving parts or prevent any covers from being installed correctly.

http://www.justmanuals.com

2. Make sure the Left Roll Support is attached inside the two holes.



NOTE: When connecting the cables to the Main PCA, make sure that the blue side of the flat cables is facing you; and, with the red/black cables, **the red color should always be on the left**.

Right Roll Support

NOTE: The right support for the T120 models does not contain dampers. The T120 and T520 have two different assemblies from the factory, nevertheless both can be replaced by the damper option of T520 (identical from the external point of view), and there is only one service part available.

Removal

1. Switch off the printer and remove the power cable.
2. Remove the Front Cover, see Front Cover on page 150.
3. Remove the Ink Cartridge Cover, see Ink Cartridge Cover on page 156.
4. Remove the Left Cover, see Left Cover on page 158.
5. Remove the Right Cover, see Right Cover on page 153.
6. Remove the Back Cover, see Back Cover on page 163.
7. Remove the Spindle.
8. Remove the Roll Cover, see Roll Cover on page 160.
9. Remove the Upper-Roll Paper Guide, see Upper-Roll Paper Guide on page 177.

   NOTE: There are two brackets for the back cover that are screwed onto the Multi-Sheet Tray, these do not need to be removed.

10. Remove three T-15 screws.

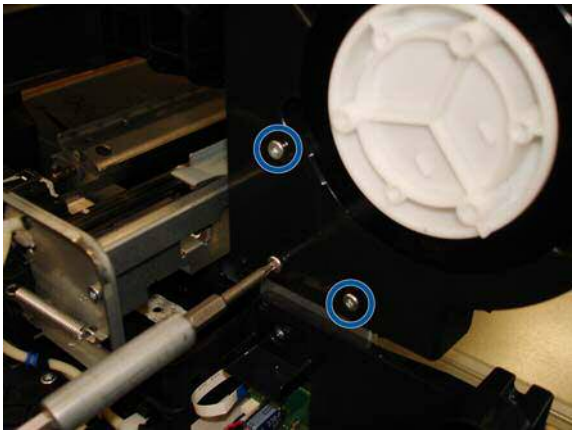


http://www.justmanuals.com

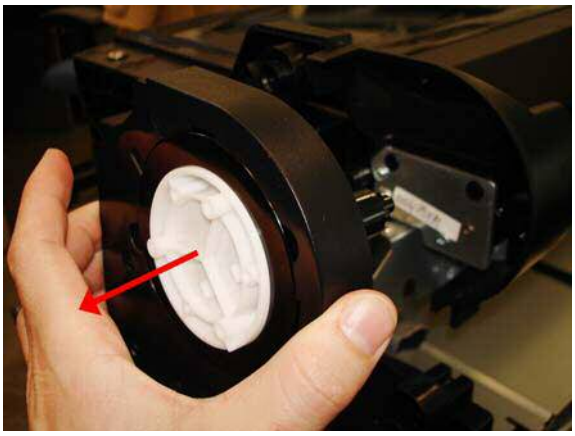
11. Remove two T-10 screws.



12. Remove three T-10 screws.



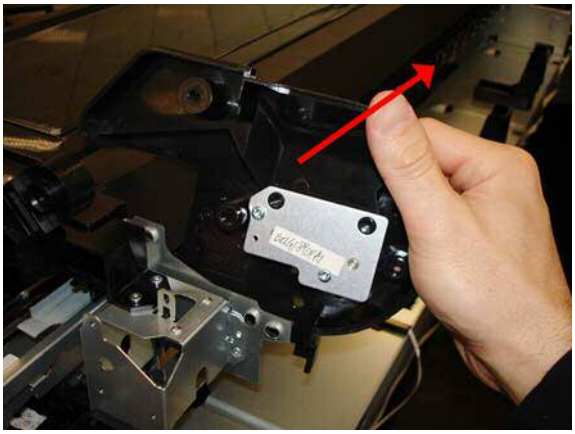
13. Remove the end of the Roll Support.



14. Remove one T-10 screw.



15. Remove the Cover Right Roll Support.

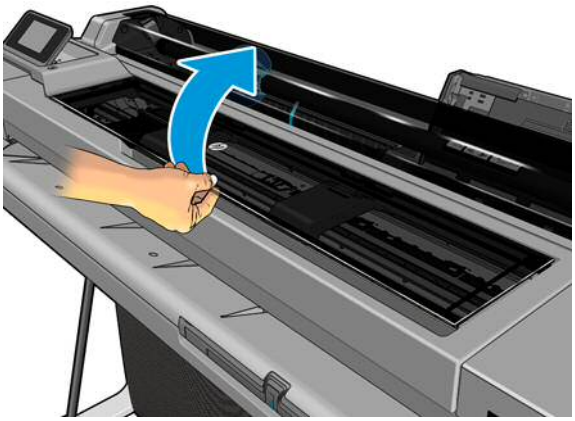


http://www.justmanuals.com

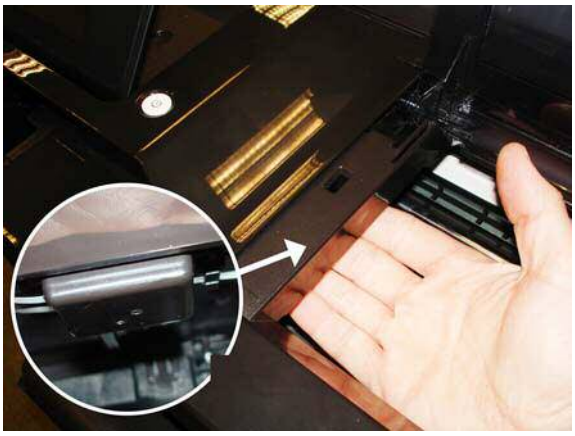
Top Cover Sensor

Removal

1. Open the Top Cover.



2. Locate the Top Cover Sensor.



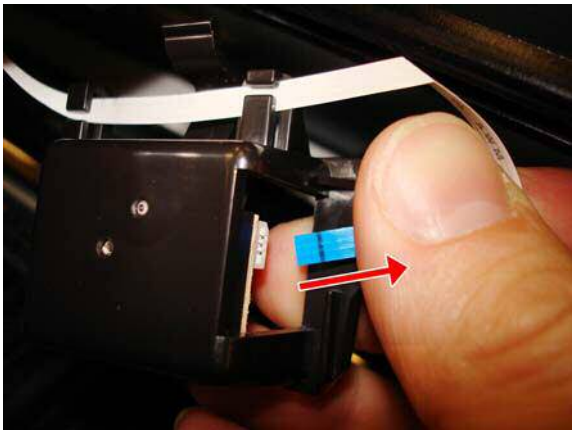
3. Slide the Top Cover Sensor to the left.



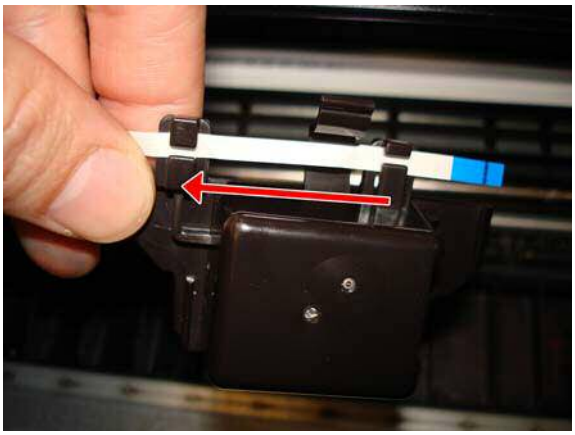
4. Take out the Top Cover Sensor, being careful not to damage the flat cable.



5. Disconnect the flat cable from the Top Cover Sensor.

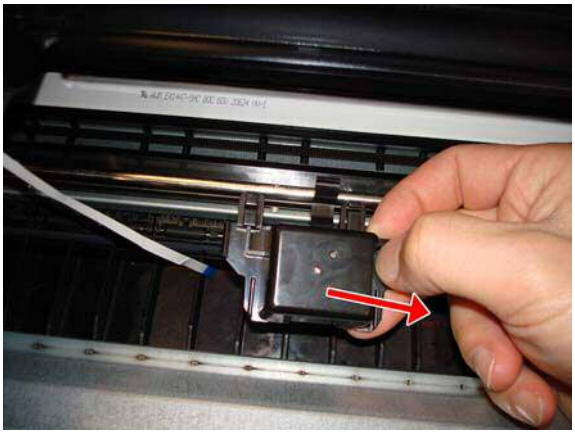


6. Slide the flat cable from the two hooks of the Top Cover Sensor.



http://www.justmanuals.com

7. Remove the Top Cover Sensor.



Installation

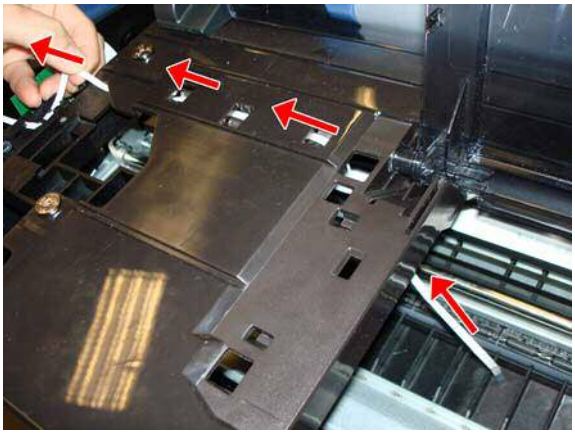
1. Be careful with the routing of the cable. If the cable hangs down, it could be broken by the Carriage.
2. Center the sensor in the hole to facilitate the assembly.



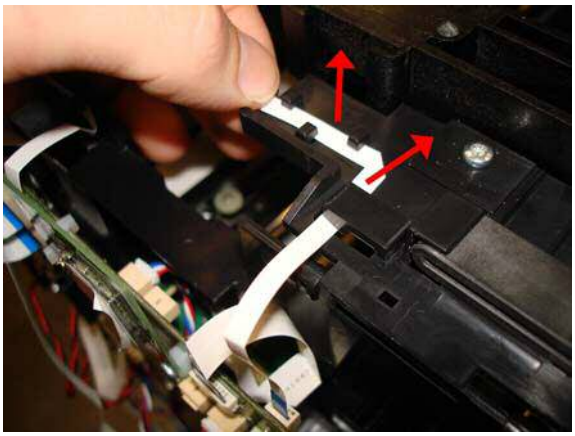
Top Cover Sensor Cable

Removal

1. Switch off the printer and remove the power cable.
2. Remove the Front Cover, see Front Cover on page 150.
3. Remove the Ink Cartridge Cover, see Ink Cartridge Cover on page 156.
4. Remove the Left Cover, see Left Cover on page 158.
5. Remove the Front Panel, see Front Panel on page 165.
6. Remove the Top Cover Sensor, see Top Cover Sensor on page 188.
7. Unroute the flat cable.

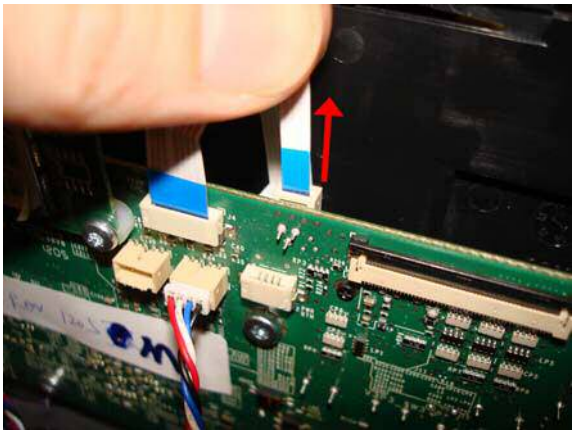


8. Unclip the flat cable.

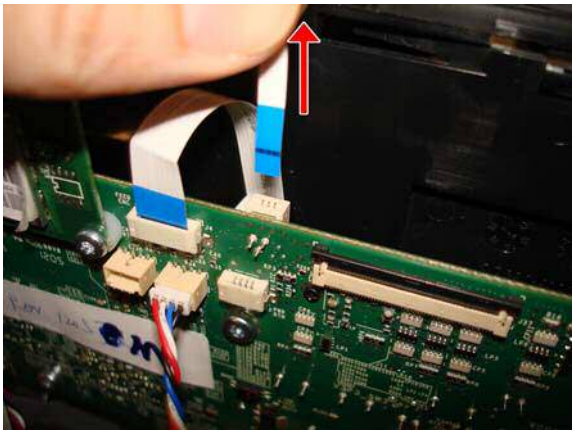


http://www.justmanuals.com

9. Disconnect the flat cable (Top Door Sensor FFC).



10. Remove the flat cable



Installation

▲ When routing the flat cable, make sure that you pass it through the 3 hooks, and that the blue-end cable is facing up.

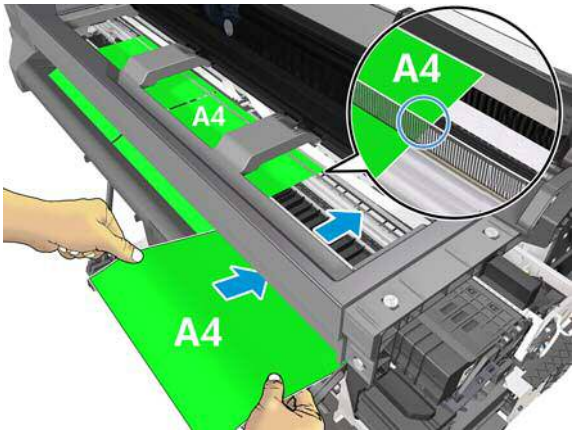


Encoder Strip

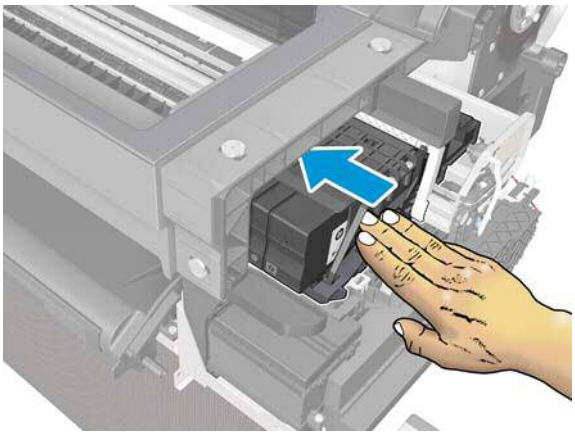
Removal

1. Switch off the printer and remove the power cable.
2. Remove the Front Cover, see Front Cover on page 150.
3. Remove the Right Cover, see Right Cover on page 153.
4. Insert some paper (of any type) to prevent grease or dirt from falling into the printer.

NOTE: When working in this area, in which dirt and grease can contaminate other parts of the printer, we recommend wearing gloves.

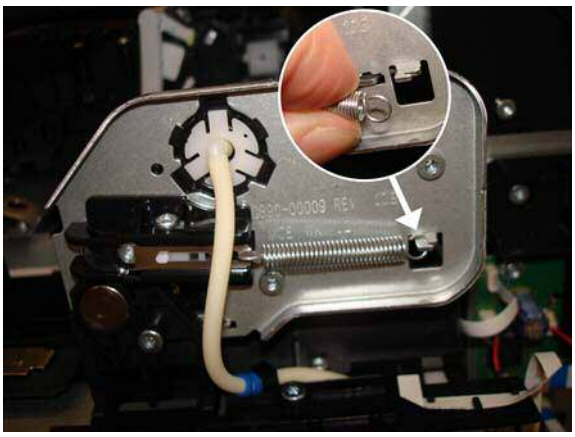


5. Uncap the Carriage and move it to the left.



http://www.justmanuals.com

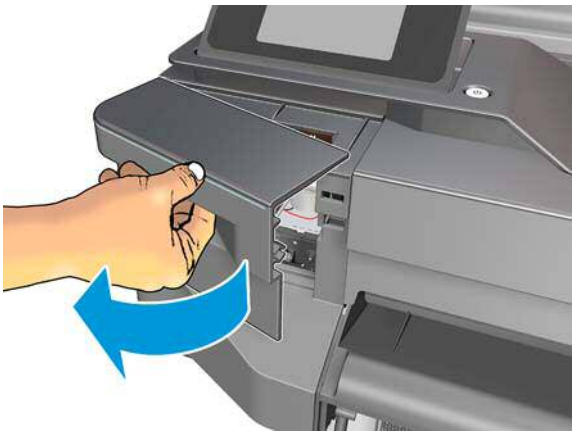
6. Detach the spring.



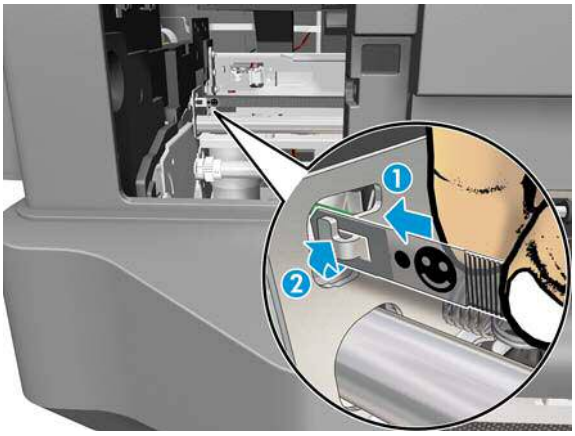
CAUTION: The Encoder Strip must not come into contact with the slider rod grease! Handle with care, and be careful with your hands and the Encoder Strip.

CAUTION: The primer pipe at the end plate can become damaged.

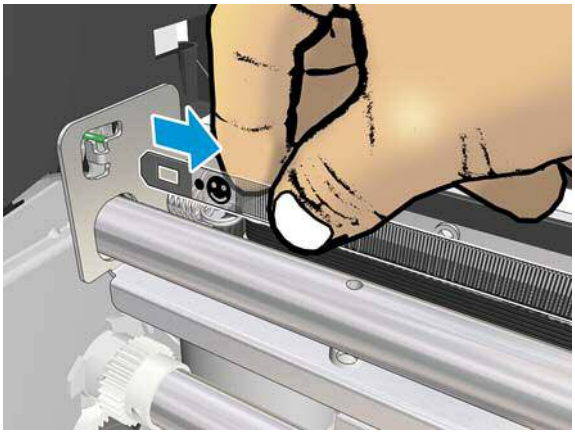
7. Open the Ink Cartridge Cover.



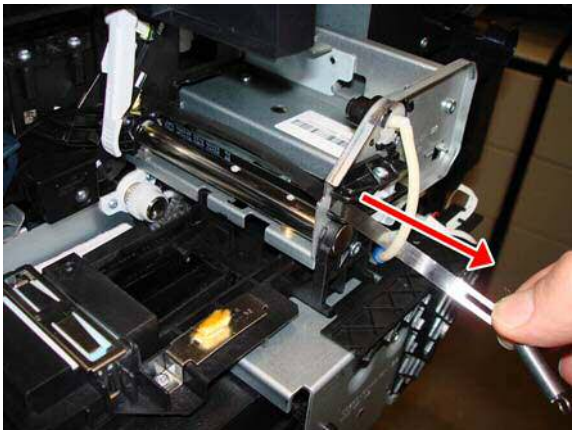
8. Rotate the Encoder Strip a little to detach it from the hook.



9. Detach the Encoder Strip from the hook.

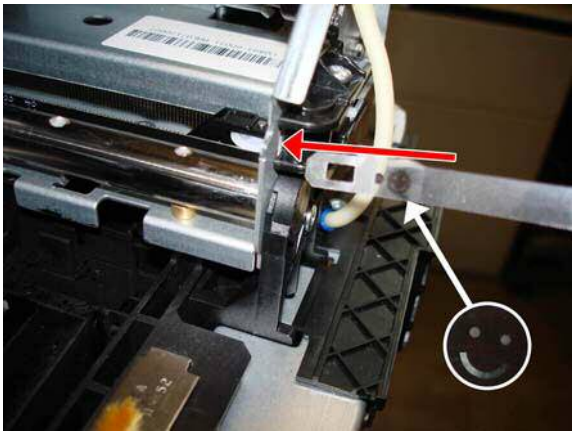


10. Slide the Encoder Strip carefully from the right side, and remove it.



Installation

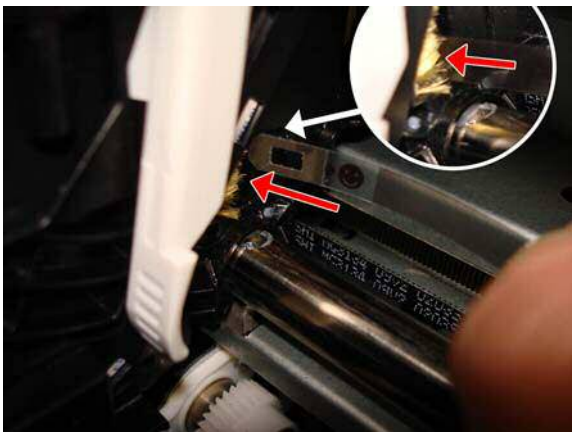
1. Move the Carriage to cap position.
2. Pass the Encoder Strip through the hole of the bracket. **Very important:** The face is shown here:



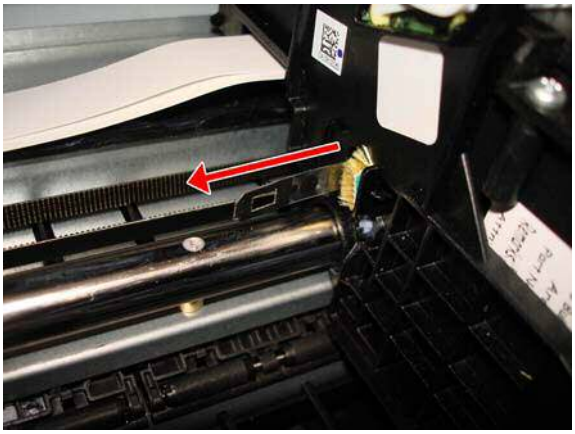
NOTE: The Encoder Strip must be inserted from the right side of the Carriage into the left side.

http://www.justmanuals.com

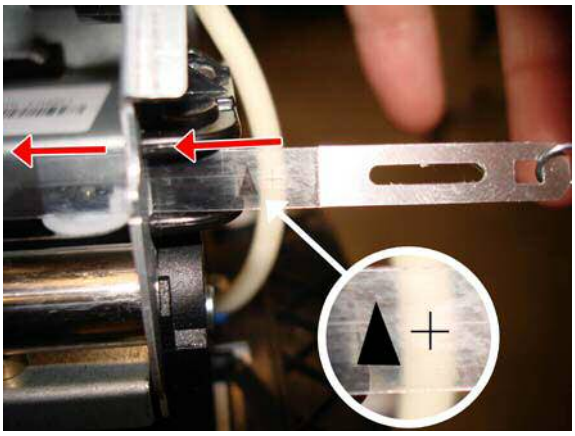
3. Pass the Encoder Strip through the hole of the Carriage, taking care not to bend it.



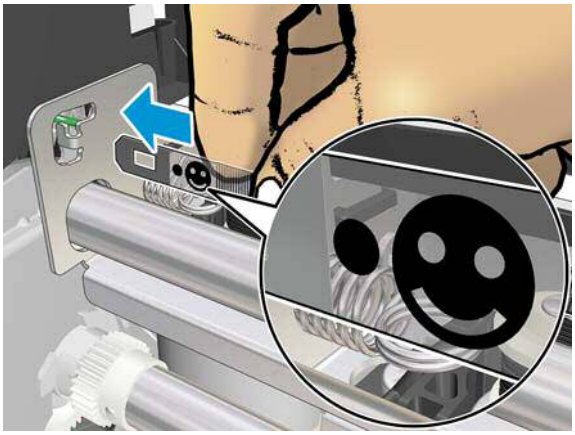
4. The Encoder Strip should go out through the other side of the Carriage as shown.



5. The right end of the Encoder Strip must have the triangle in the position as shown below.



6. When you attach the left end of the Encoder Strip to the hook, make sure the position of the face is as shown below.



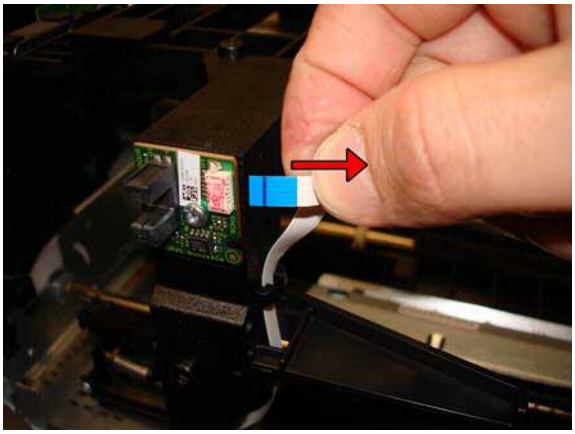
7. Attach the Encoder Strip at the left before attaching the spring at the right.

http://www.justmanuals.com

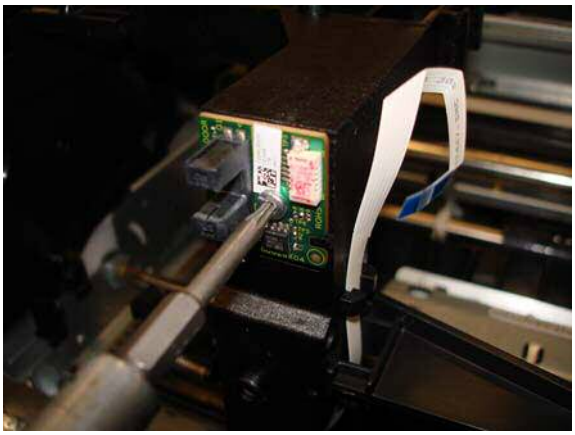
Ink Cartridge Cover PCA Assembly

Removal of the Ink Cartridge Cover PCA and Sensor

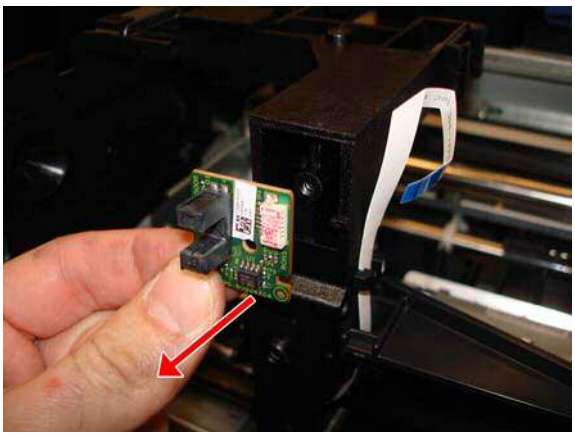
1. Switch off the printer and remove the power cable.
2. Remove the Front Cover, see Front Cover on page 150.
3. Remove the Front Panel, see Front Panel on page 165.
4. Remove the Ink Cartridge Cover, see Ink Cartridge Cover on page 156.
5. Remove the Left Cover, see Left Cover on page 158.
6. Remove the Right Cover, see Right Cover on page 153.
7. Remove the Central Cover, see Central Cover on page 172.
8. Disconnect the flat cable.



9. Remove one T-10 screw.



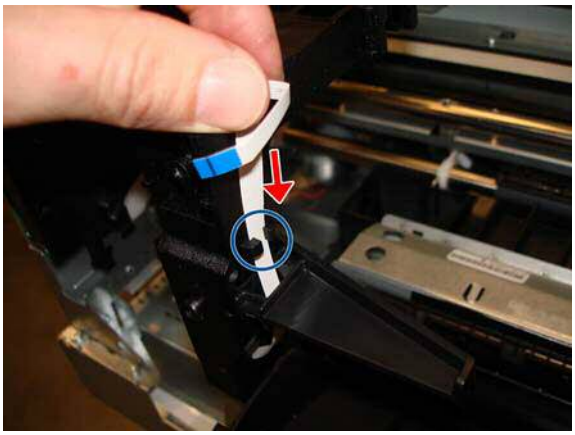
10. Remove the Ink Cartridge Cover PCA and Sensor.



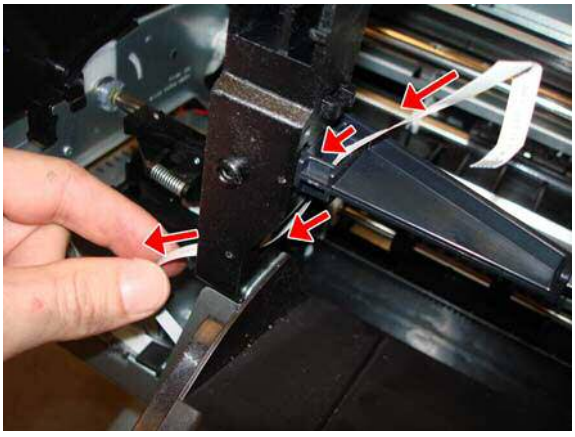
Removal of Ink Cartridge Cover PCA Cable

The cable needs to be replaced only if it is clearly damaged or if the replaced sensor fails to work.

1. Slide down the flat cable to detach it from the hook.



2. Unroute the Ink Cartridge Cover PCA Cable.

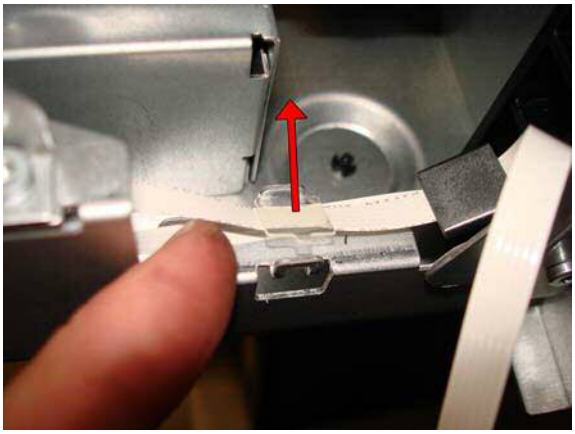


http://www.justmanuals.com

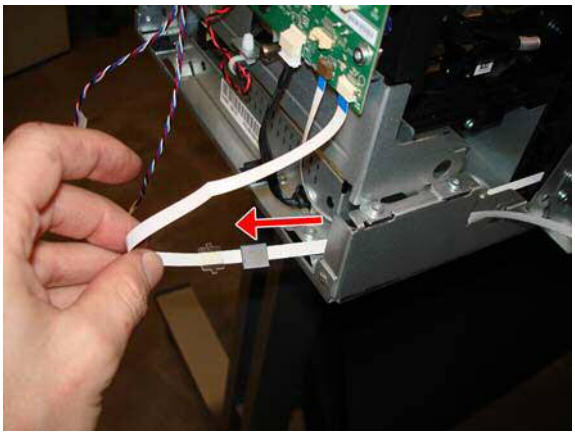
3. Be sure the Ink Cartridge Cover PCA Cable is free as shown.



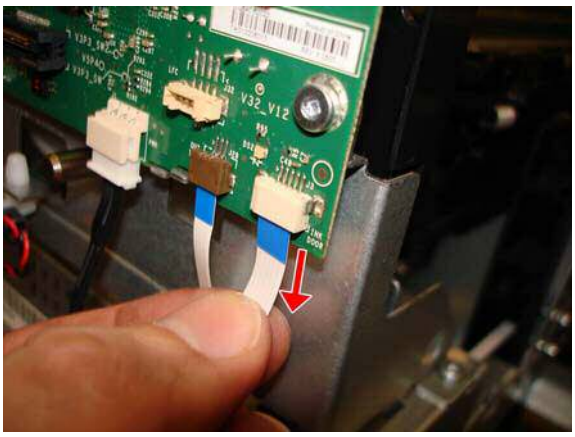
4. Unclip the Ink Cartridge Cover PCA Cable from the clip.



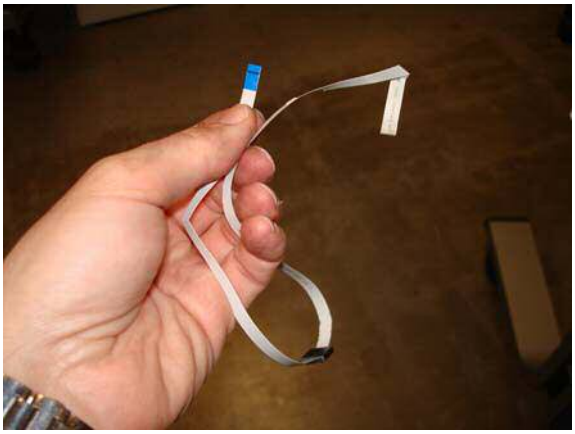
5. Slide out the Ink Cartridge Cover PCA Cable, taking care not to lose the ferrite.



6. Disconnect the Ink Cartridge Cover PCA Cable.



7. Remove the Ink Cartridge Cover PCA Cable.



Installation of Ink Cartridge Cover PCA Cable

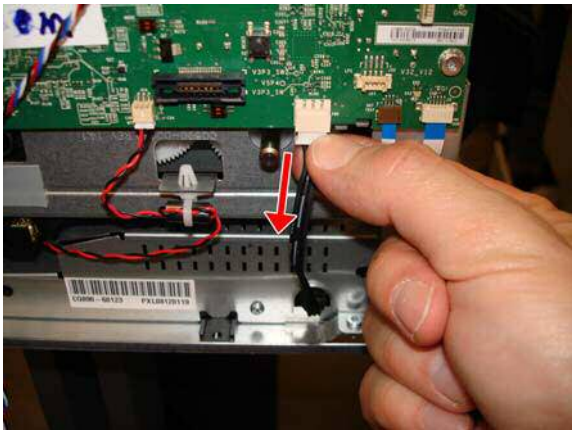
- It is important to route the new cable in the same way as the old cable.

http://www.justmanuals.com

Power Supply

Removal

1. Switch off the printer and remove the power cable.
2. Remove the Front Cover, see Front Cover on page 150.
3. Remove the Ink Cartridge Cover, see Ink Cartridge Cover on page 156.
4. Remove the Left Cover, see Left Cover on page 158.
5. Disconnect the Power Supply cable from the Main PCA.

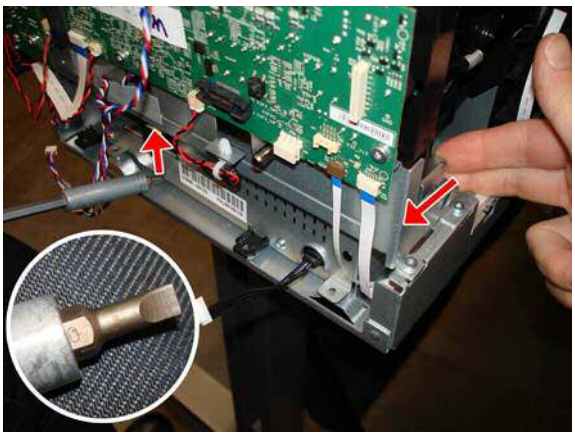


6. Remove two T-10 screws.

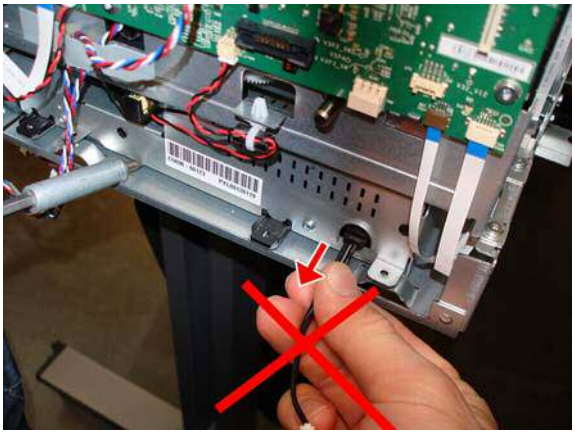




7. Slide out with a flat screwdriver and push from the rear.

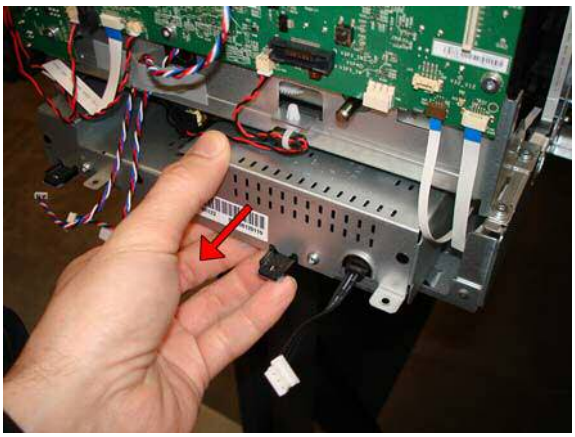


8. Never take out the Power Supply by pulling the cable, because you will damage it.



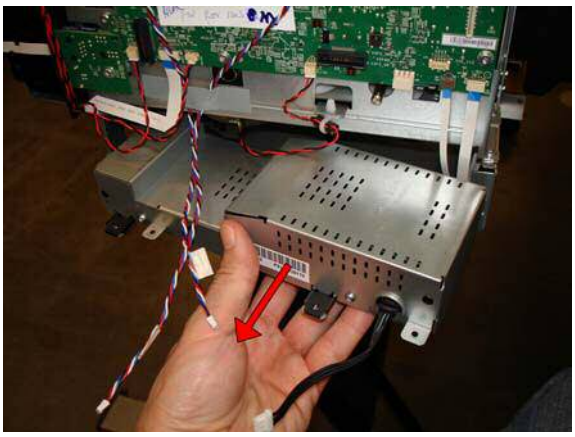
9. Slide out the Power Supply carefully.

CAUTION: Take care not to disconnect or damage any cables or the Disk Encoder.



http://www.justmanuals.com

10. Remove the Power Supply from the front.

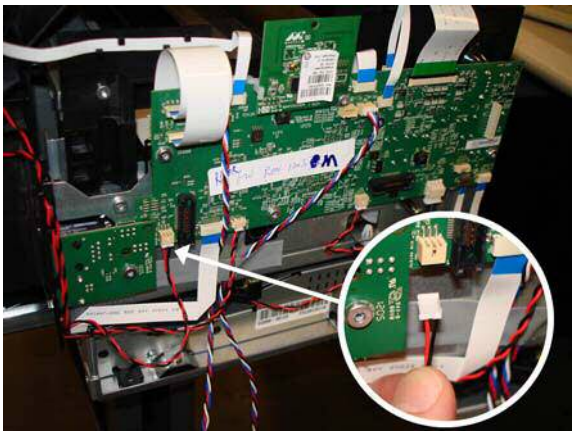


Main PCA

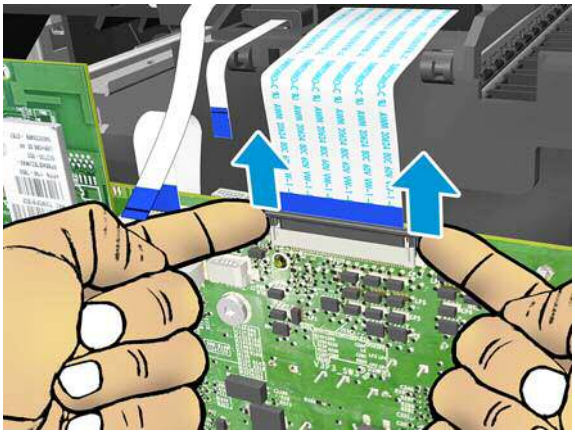
Removal

1. Switch off the printer and remove the power cable.
2. Remove the Front Cover, see Front Cover on page 150.
3. Remove the Ink Cartridge Cover, see Ink Cartridge Cover on page 156.
4. Remove the Left Cover, see Left Cover on page 158.
5. Disconnect all cables (7 FFC cables on top and 3 FFC cables underneath, and 3 motor cables). See The Main PCA on page 30.

CAUTION: Take care! Do not pull up so hard as to damage the connectors .

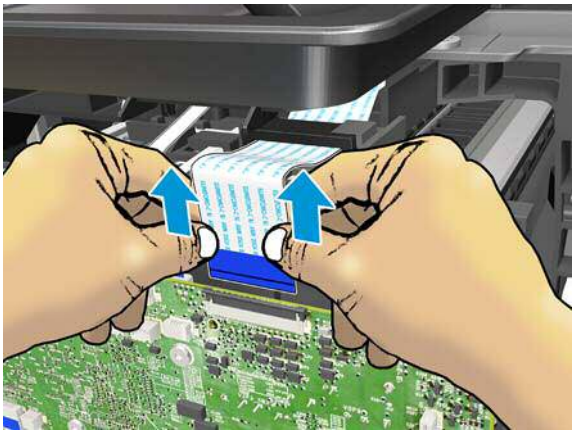


6. When you disconnect this flat cable, make sure to unlock it by pushing up the clip.

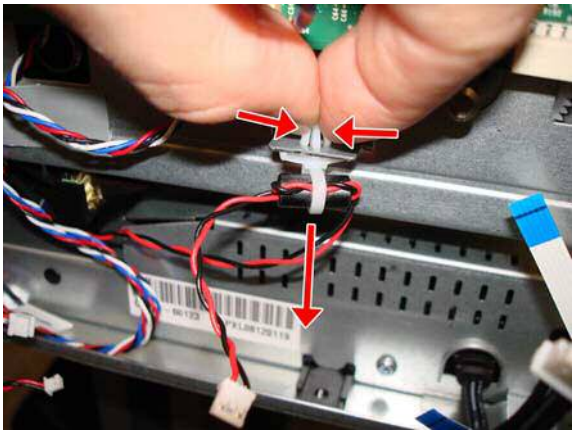


http://www.justmanuals.com

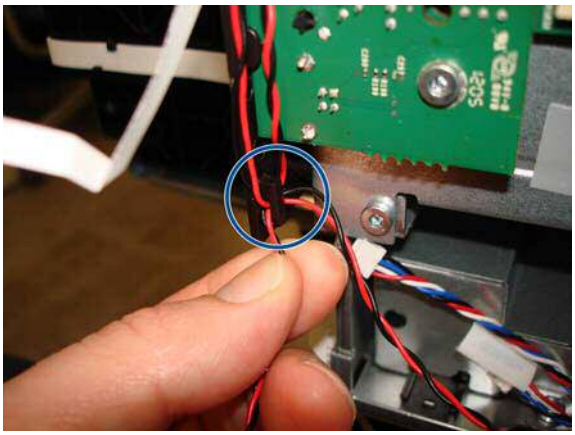
7. Disconnect the flat cable.



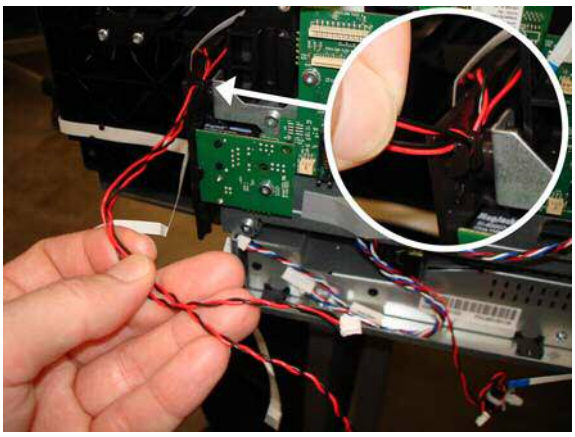
8. Unclip and remove it.



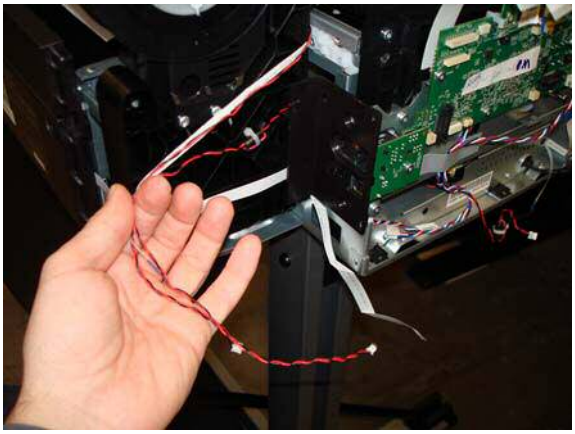
9. Unhook the two cables from the bottom hook.



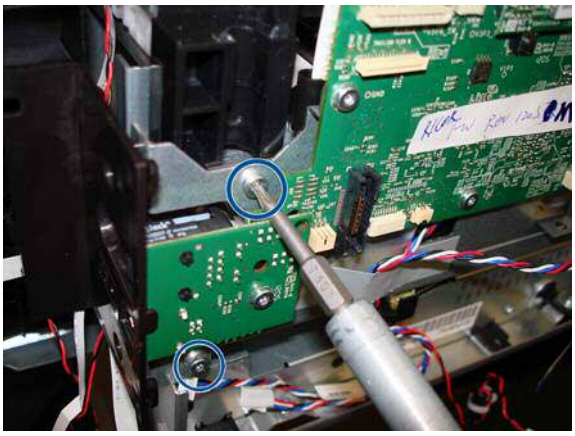
10. Unhook the two cables from the top hooks.



11. Make sure both cables are free.

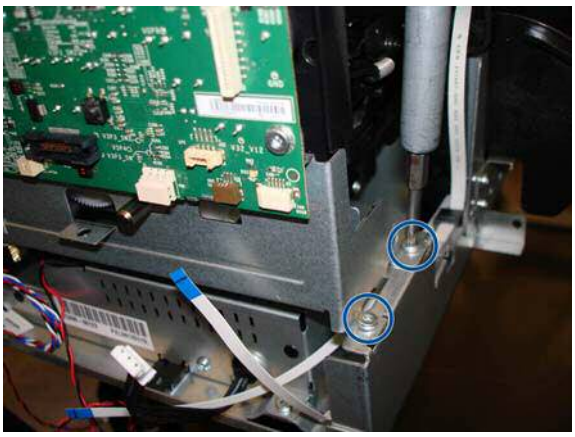


12. Remove two T-10 screws.

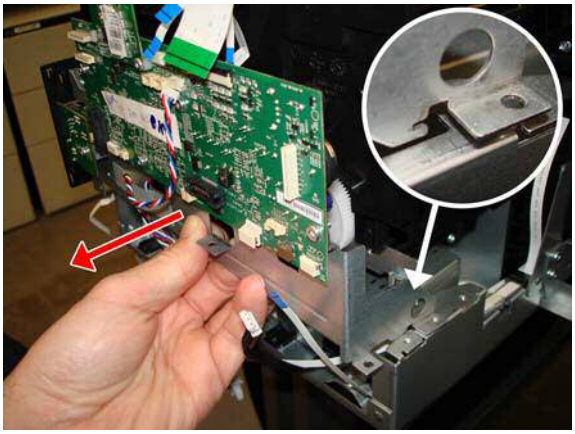


http://www.justmanuals.com

13. Remove two T-10 screws.

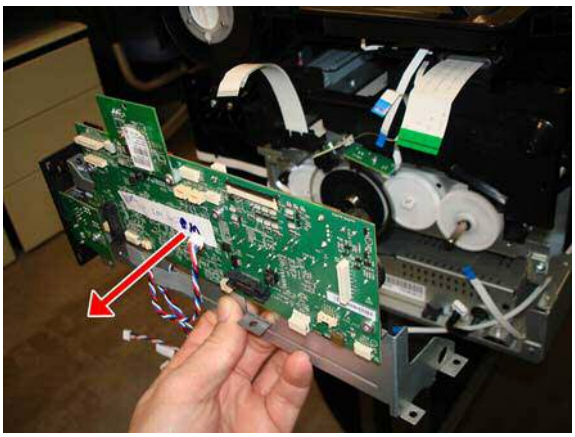


14. Slide out the Main PCA horizontally to disengage it from the hook.



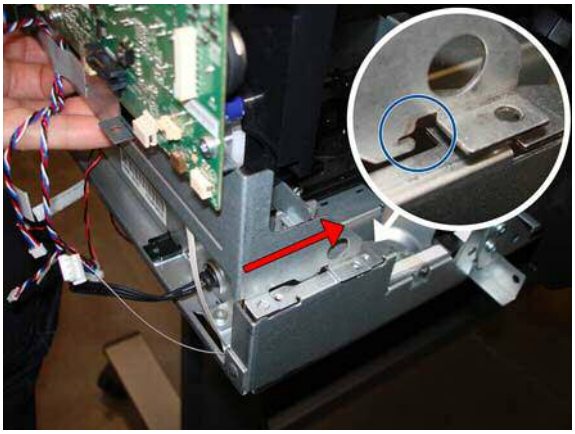
15. Remove the Main PCA.

CAUTION: The Main PCA will come out of the printer together with the attached metal bracket.

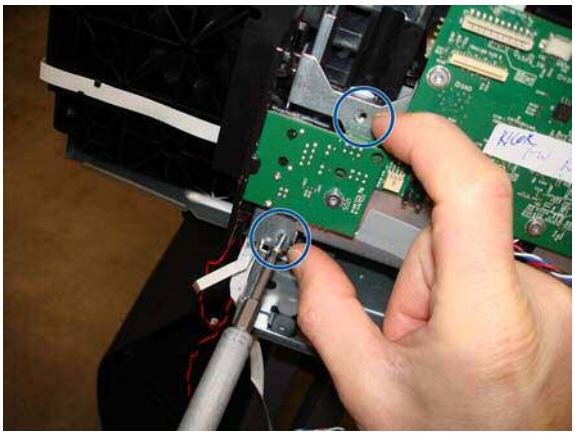


Installation

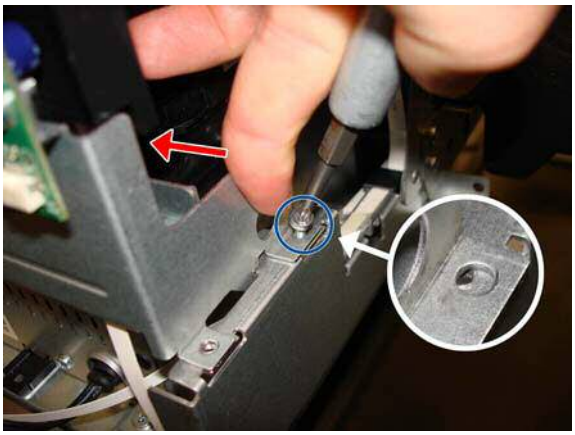
1. When mounting the Main PCA, remember to insert it in the hook.



2. First place these two screws, because will be easier to screw in the next two screws.

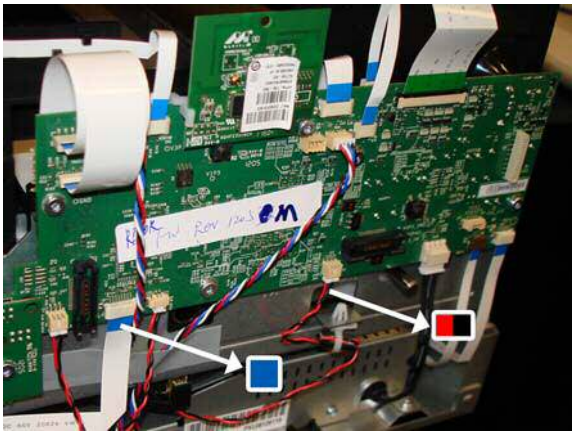


3. Push in the bracket of the Main PCA to align the two holes and screw the two screws without damaging them.



http://www.justmanuals.com

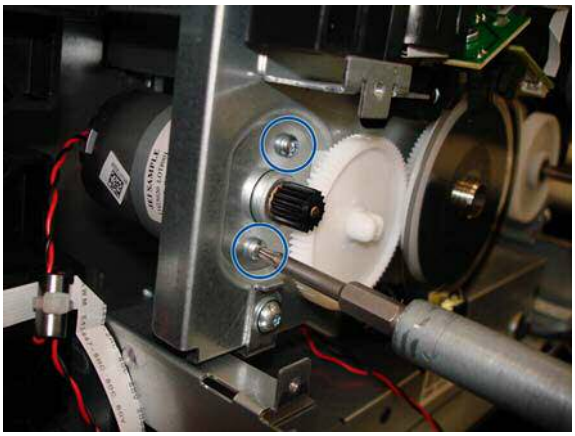
4. When connecting the cables to the Main PCA, make sure that the blue side of the flat cables is facing you; and, with the red/black cables, **the red color should always be on the left**.



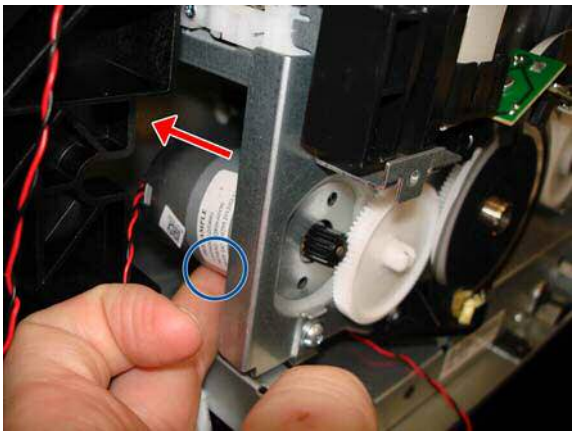
Paper Motor

Removal

1. Switch off the printer and remove the power cable.
2. Remove the Front Cover, Front Cover on page 150.
3. Remove the Ink Cartridge Cover, see Ink Cartridge Cover on page 156.
4. Remove the Left Cover, see Left Cover on page 158.
5. Remove the Main PCA, see Main PCA on page 205.
6. Remove two T-10 screws.

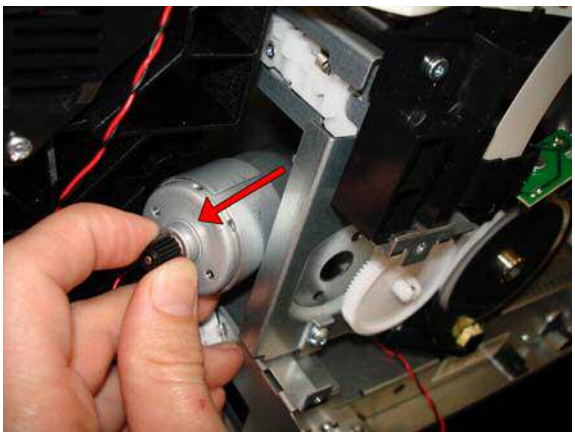


7. Slide the Paper Motor inwards, and hold it with a finger to stop it falling down.



http://www.justmanuals.com

8. Slide it out from this hole.

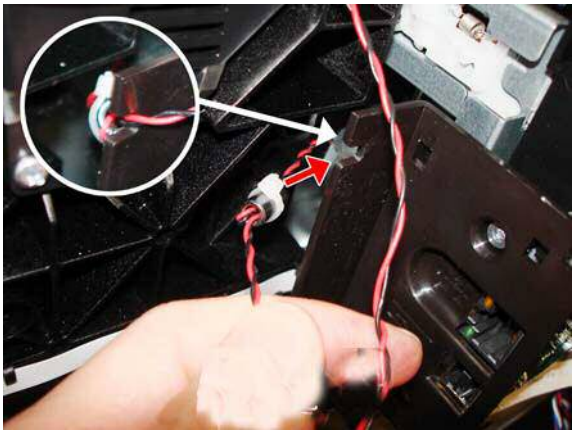


9. Remove the Paper Motor.



Installation

▲ Make sure to reinstall the ferrite inside the wall of the LAN Panel USB.

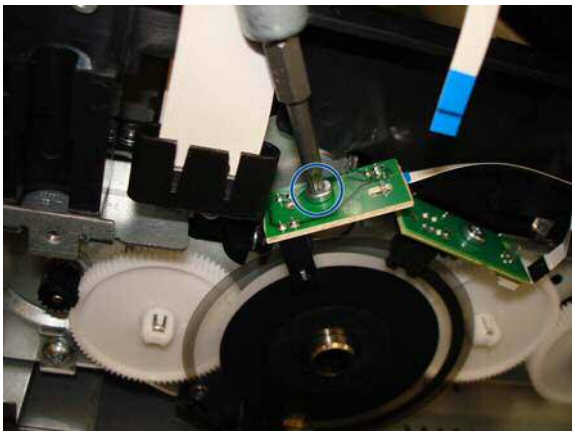


Encoder PCA and Index

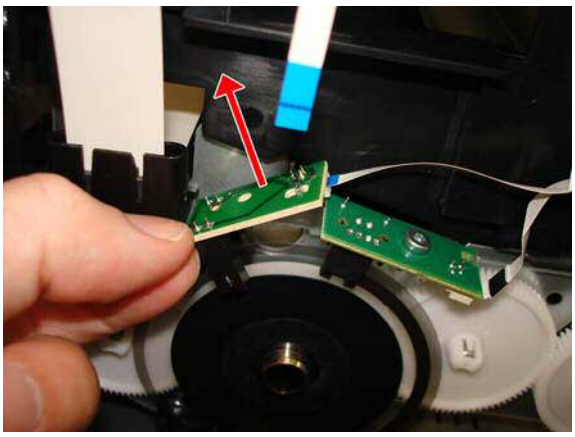
Removal

1. Switch off the printer and remove the power cable.
2. Remove the Front Cover, see Front Cover on page 150.
3. Remove the Ink Cartridge Cover, see Ink Cartridge Cover on page 156.
4. Remove the Left Cover, see Left Cover on page 158.
5. Remove the Main PCA, see Main PCA on page 205.
6. Remove one T-10 screw.

CAUTION: Be careful not to damage the Encoder Disk.

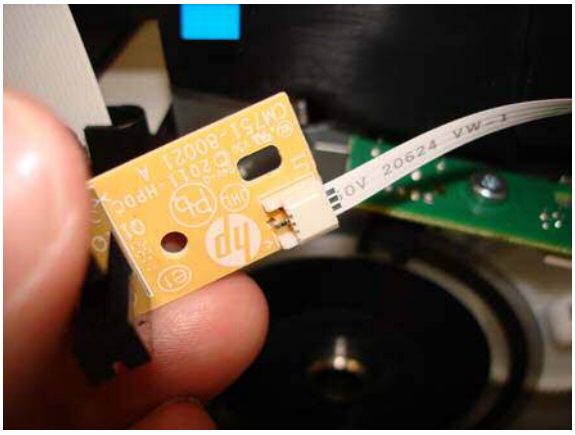


7. Release the PCA from the pin or locator.

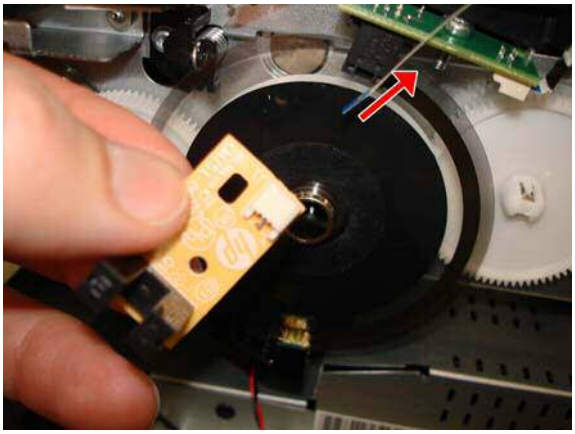


http://www.justmanuals.com

8. Rotate the PCA to see the connector.

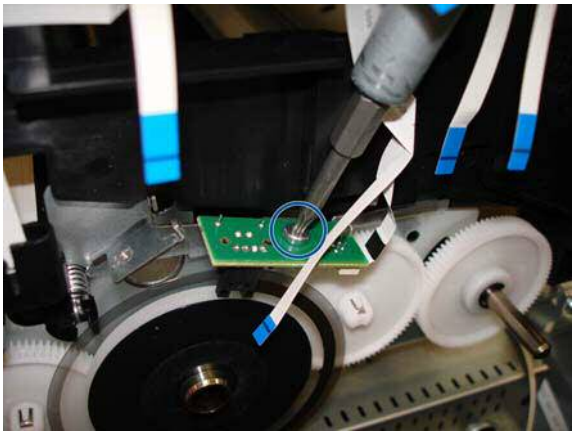


9. Disconnect the flat cable.

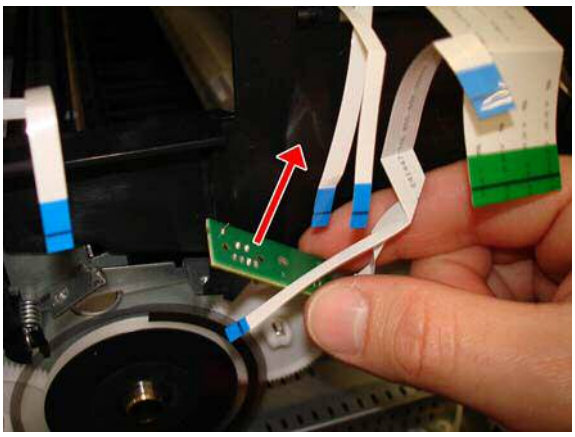


10. Remove one T-10 screw.

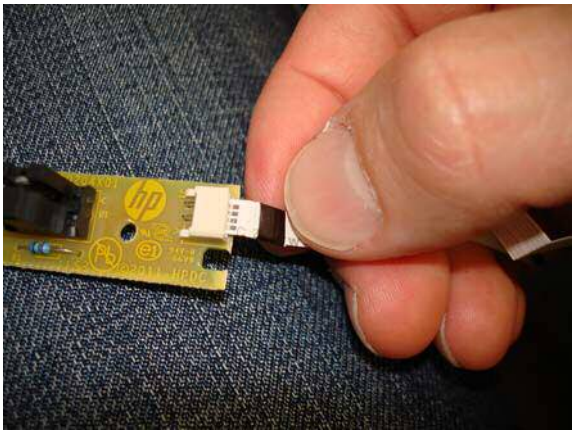
CAUTION: Be careful not to damage the Encoder Disk.



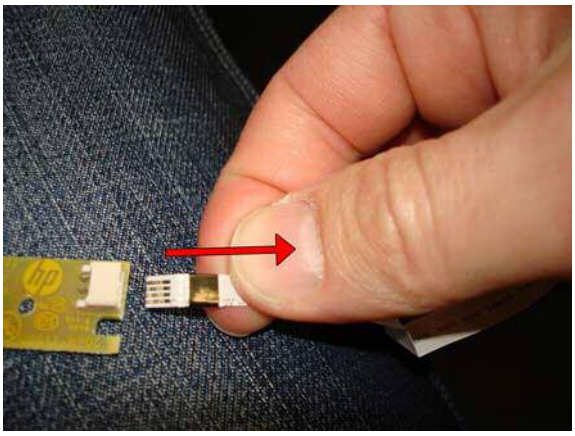
11. Release the PCA from the pin or locator.



12. Rotate the PCA to see the connector.



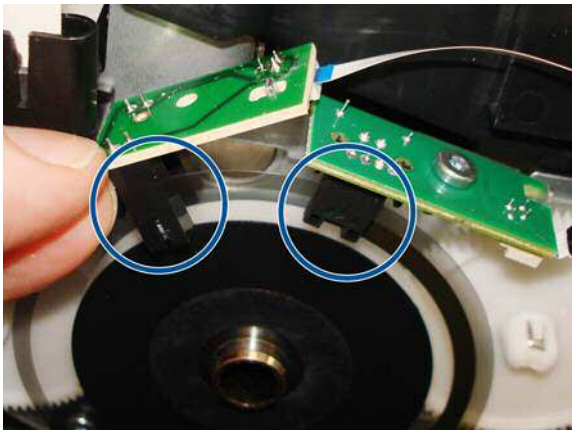
13. Disconnect the flat cable.



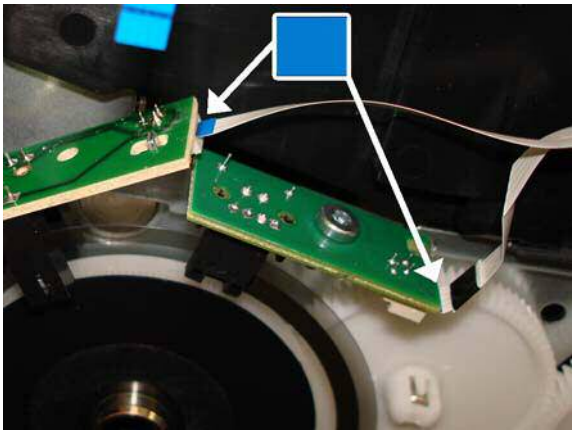
http://www.justmanuals.com

Installation

1. Be careful not to damage the Encoder Strip when you mount the two PCAs.

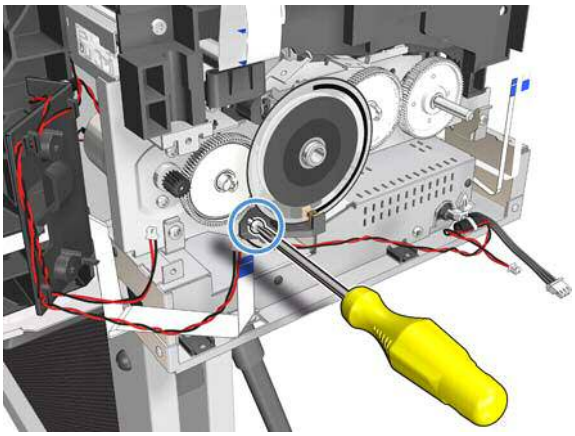


2. When connecting the cables to the PCAs, make sure that the blue side of the flat cables is facing up.

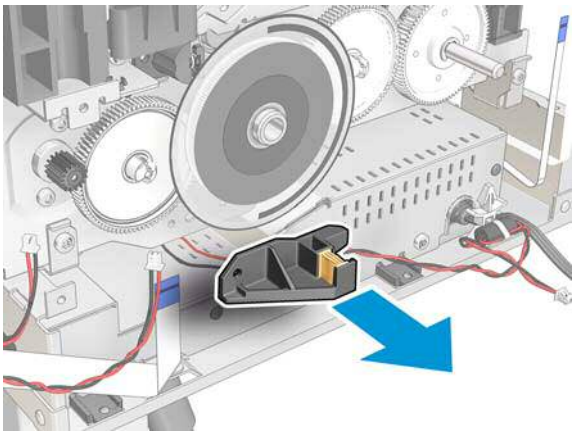


Encoder Disk

1. Switch off the printer and remove the power cable.
2. Remove the Front Cover, see Front Cover on page 150.
3. Remove the Ink Cartridge Cover, see Ink Cartridge Cover on page 156.
4. Remove the Left Cover, see Left Cover on page 158.
5. Remove the Main PCA, see Main PCA on page 205.
6. Remove the Encoder PCA and Index, see Encoder PCA and Index on page 213.
7. Remove one T-10 screw.

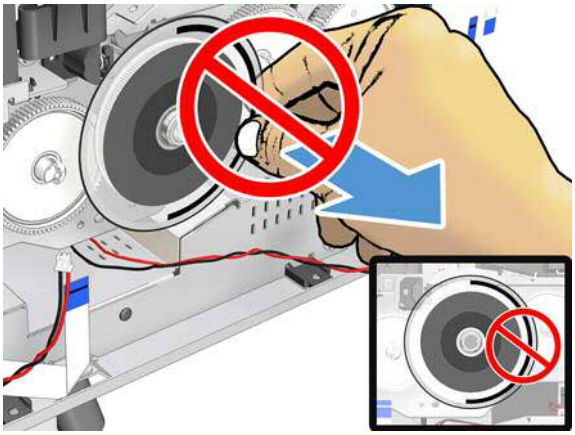


8. Remove the Holder Brush Feed Shaft.

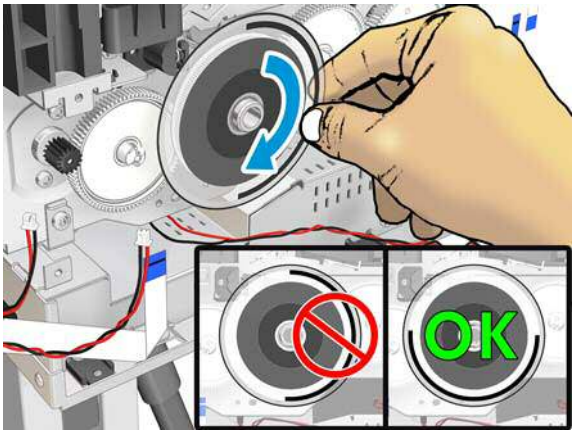


http://www.justmanuals.com

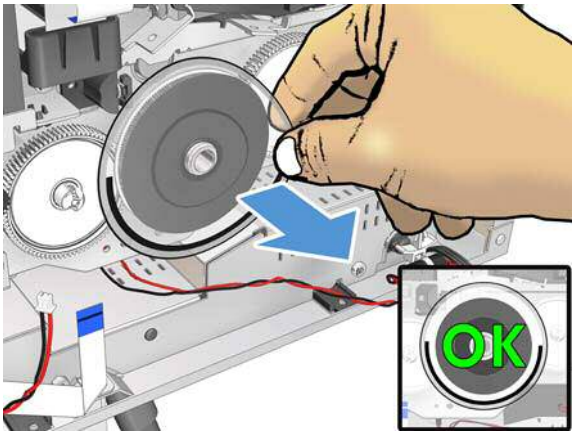
9. **IMPORTANT:** Do not remove the Encoder Disk without checking the position of the black reference mark.



10. Rotate the Encoder Disk to a position where the black reference mark is entirely below the midpoint of the disk (so that it looks like a smile).

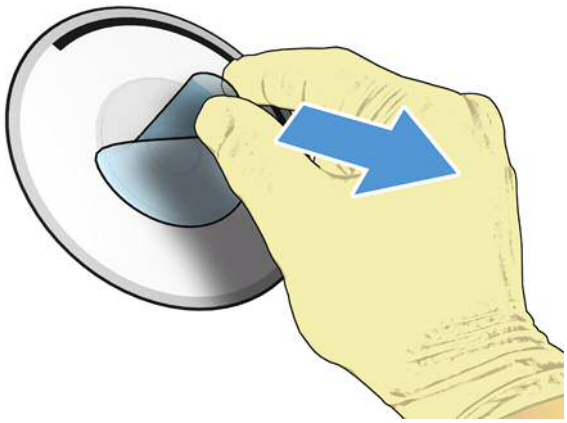


11. Remove the Encoder Disk by pulling it off (without moving the Roller).

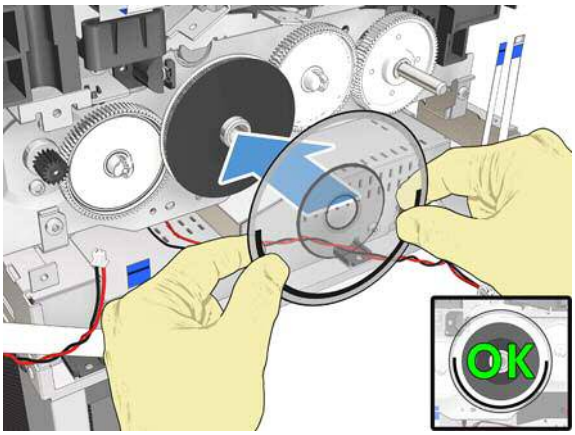


Installation

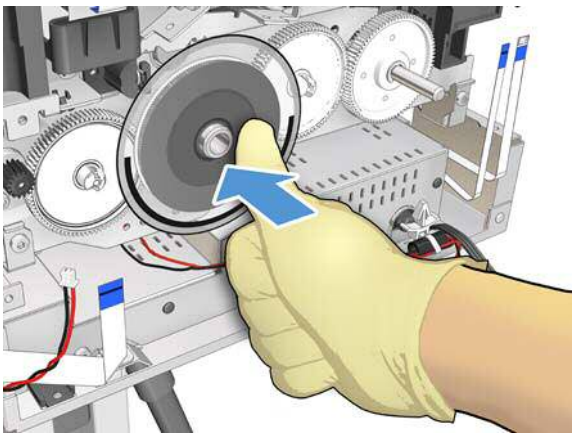
1. Remove the film from the new Encoder Disk. **IMPORTANT:** Wear gloves.



2. Clean the new Encoder Disk with a lint-free cloth dampened with alcohol to remove any remaining glue. Let it dry before proceeding.
3. Attach the new Encoder Disk with the black reference mark in exactly the same position as it was when you removed it (without moving the Roller).



4. Make sure the Encoder Disk is firmly attached.



http://www.justmanuals.com

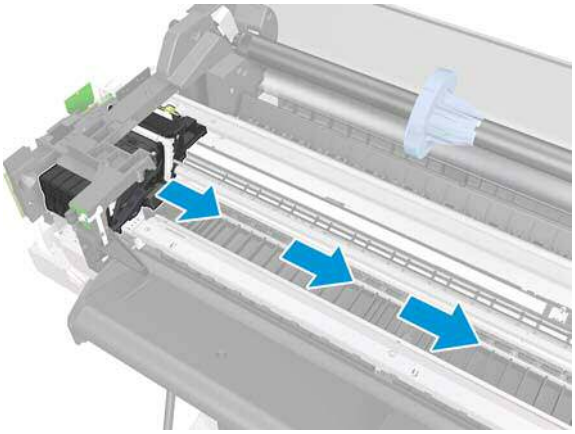
Trailing Cable

Removal

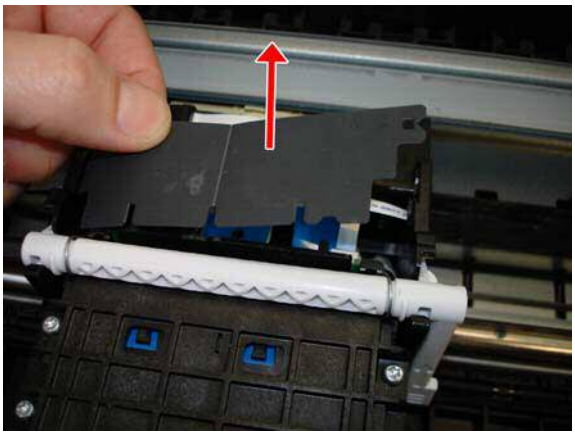
1. Switch off the printer and remove the power cable.
2. Remove the Front Cover, see Front Cover on page 150.
3. Remove the Ink Cartridge Cover, see Ink Cartridge Cover on page 156.
4. Remove the Left Cover, see Left Cover on page 158.
5. Remove the Right Cover, see Right Cover on page 153.
6. Remove the Front Panel, see Front Panel on page 165.

TIP: If you want to power on the printer, the Front Panel can be placed on clips (without cover).

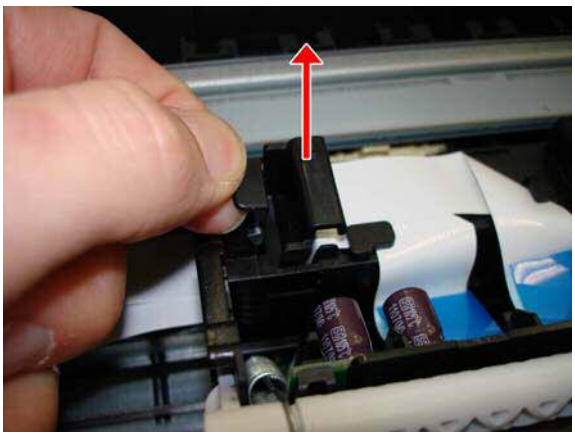
7. Remove Central Cover, see Central Cover on page 172.
8. Move the Carriage to the middle of the Platen.



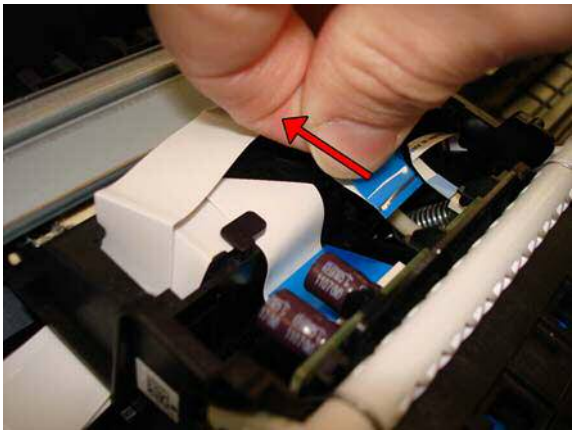
9. Remove the PCA Carriage Cover.



10. Unclip and remove the strain relief.



11. Disconnect the Trailing Cable by pulling the blue plastic.

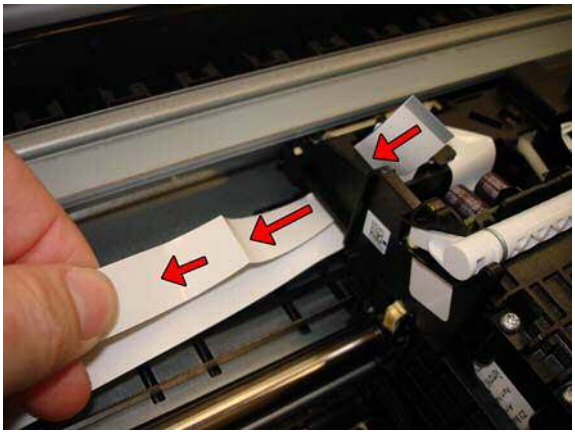


12. Put the Trailing Cable in a flat position, carefully avoiding making folds in the cable.

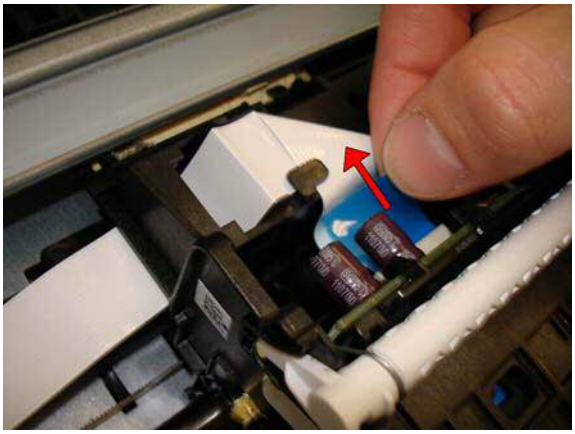


http://www.justmanuals.com

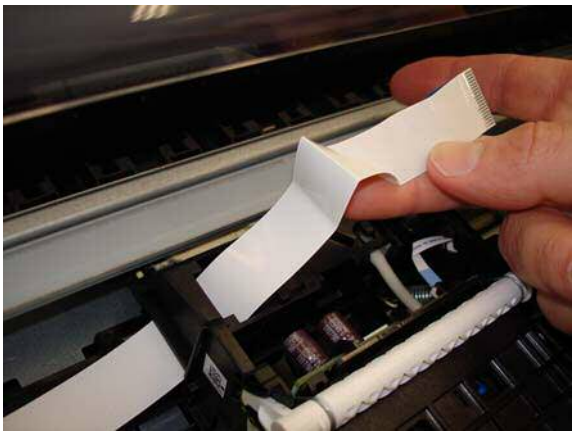
13. Slide out the Trailing Cable carefully through the hole.



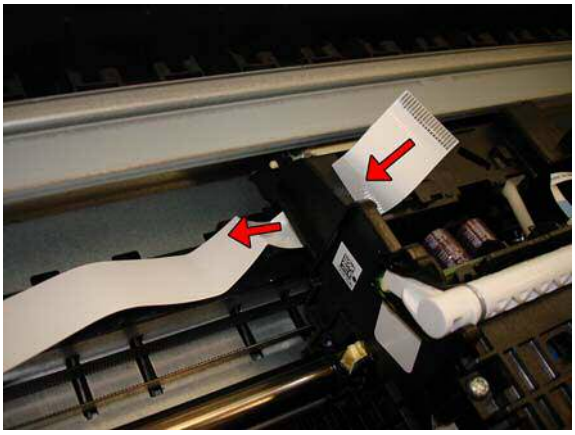
14. Disconnect the second Trailing Cable by pulling the blue plastic.



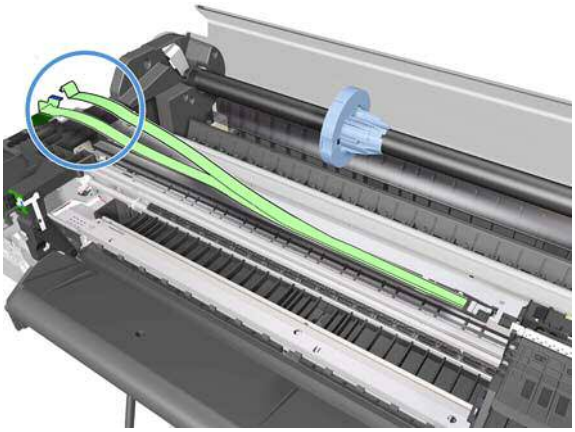
15. Put the Trailing Cable in a flat position, carefully avoiding making folds in the cable.



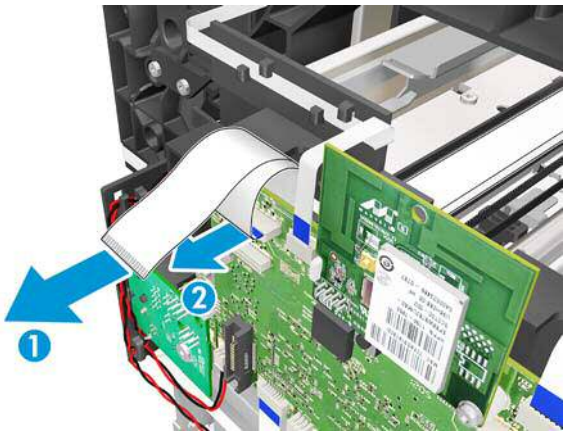
16. Slide out the Trailing Cable carefully through the hole.



17. Leave the two parts of the Trailing Cable hanging on the right side.

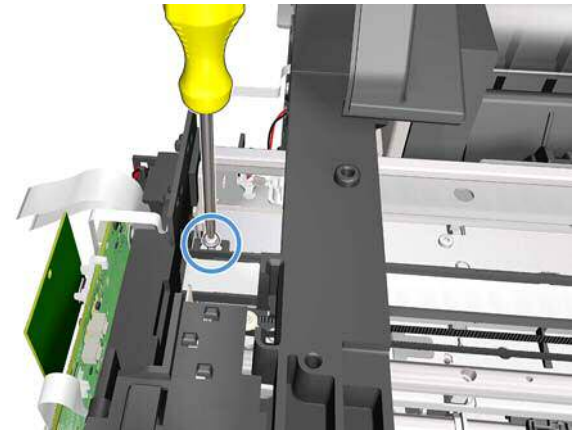


18. Disconnect the two parts of the Trailing Cable.

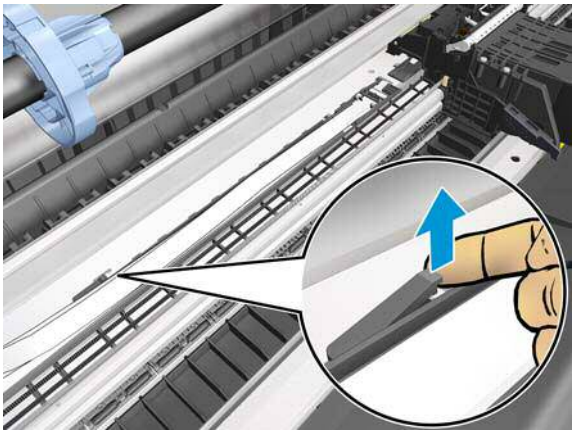


http://www.justmanuals.com

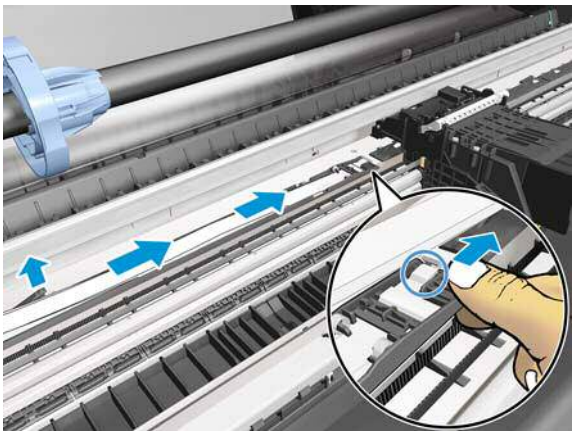
19. Remove one T-10 screw.



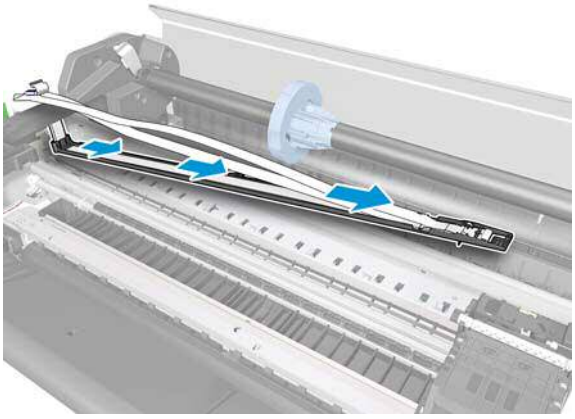
20. Unclip the flex retainer. You are recommended to wear gloves.



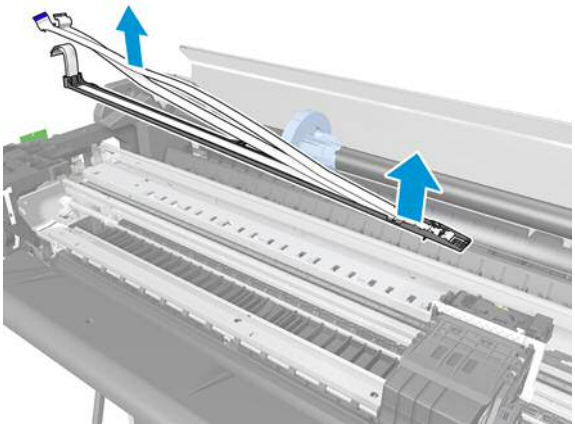
21. Slide the flex retainer to the right to unhook it.



22. Slide the Trailing Cable to the right, passing the flat cables through the hole.



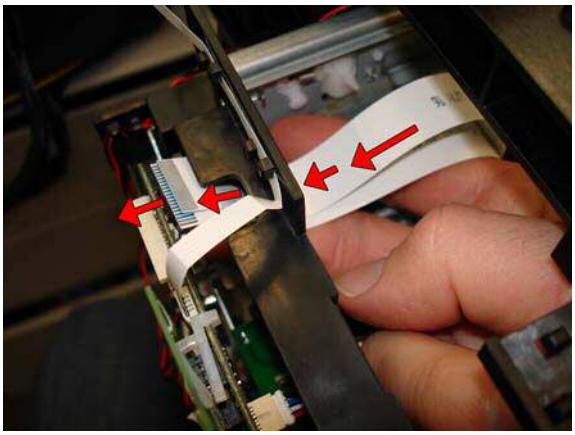
23. Remove the Trailing Cable.



Installation

You are recommended to wear gloves throughout the installation; and be careful not to touch the Encoder Strip.

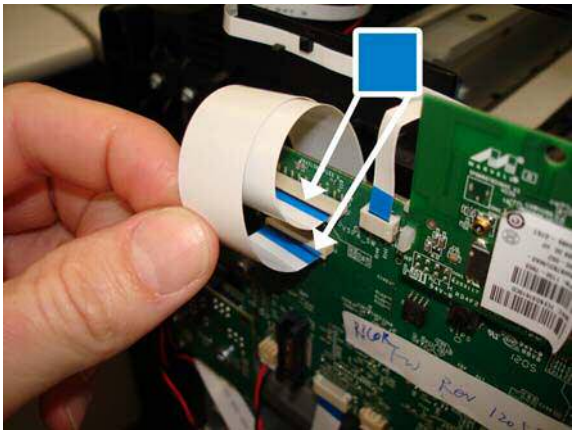
1. Pass the Trailing Cable through the Main PCA Cover and through the ferrite.



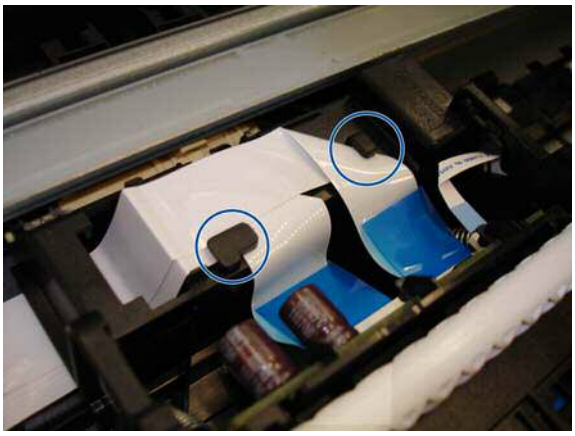
http://www.justmanuals.com

2. When connecting the cables to the Main PCA, remember that the blue side of the Trailing Cable must be facing up.

CAUTION: When connecting the two parts of the Trailing Cable, insert them into the connectors straight.

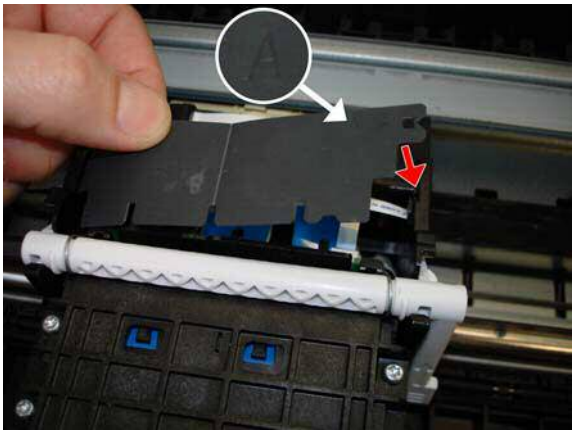


3. Hook the Trailing Cable to the two hooks.



NOTE: Be careful not to damage the cables.

4. Remember to put back the Trailing Cable retainer.
5. When installing the PCA Carriage Cover, the letter A should be on the right side.



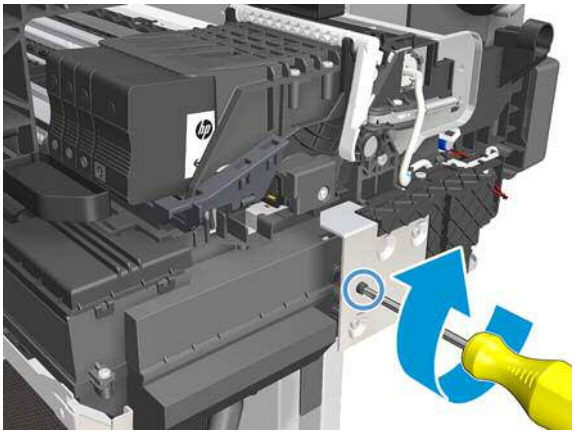
6. When the installation is complete, clean the Encoder Strip. See Clean the Encoder Strip on page 315.

Service Station

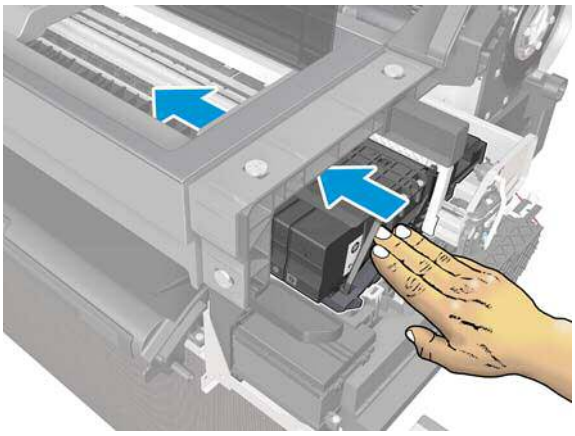
Removal

1. Switch off the printer and remove the power cable.
2. Remove the Front Cover, see Front Cover on page 150.
3. Remove the Right Cover, see Right Cover on page 153.
4. Uncap the Carriage.

CAUTION: Avoid touching the Encoder Disk by mistake.

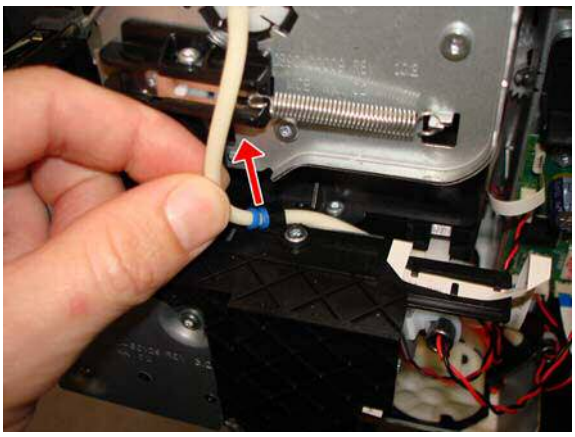


5. Move the Carriage to the left.

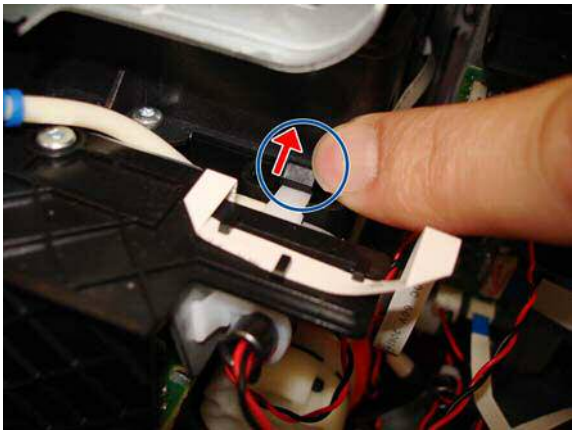


http://www.justmanuals.com

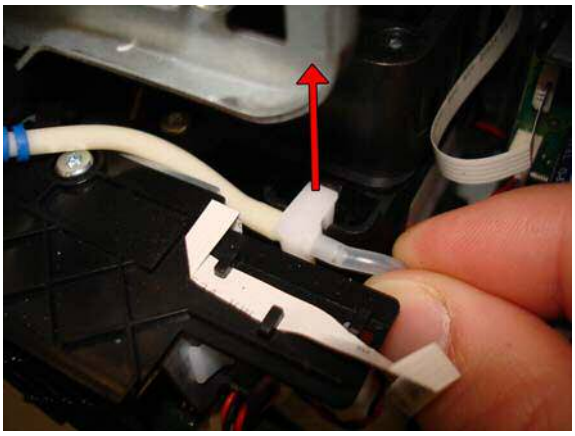
6. Unclip the tube.



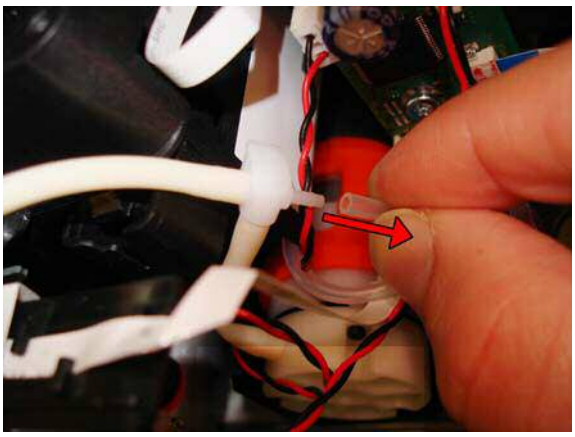
7. Unclip the Tee Pump Prime.



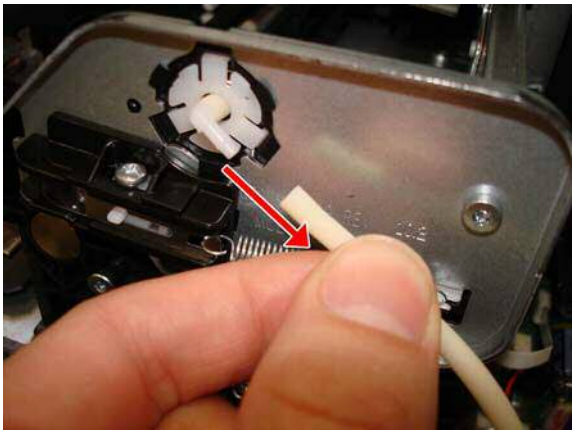
8. Remove the Tee Pump Prime.



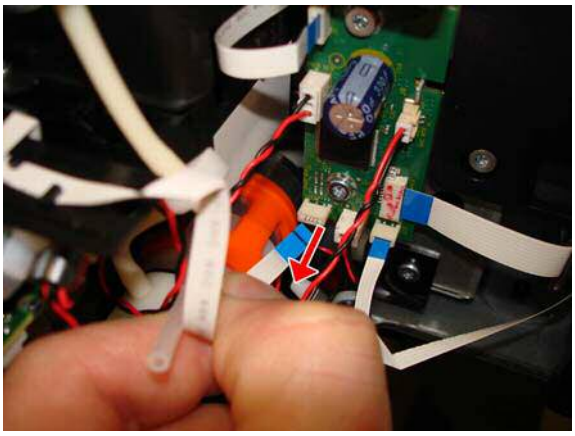
9. Disconnect the tube.



10. Disconnect the tube.

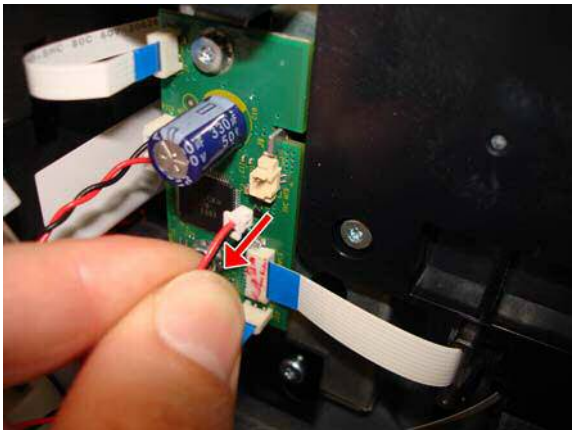


11. Disconnect the flat cable.

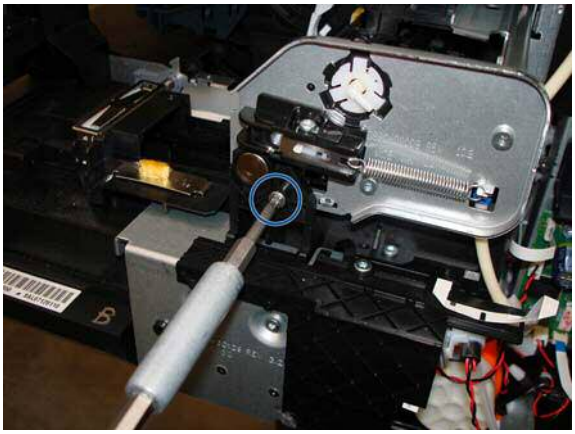


http://www.justmanuals.com

12. Disconnect the cable.



13. Remove one T-15 screw.



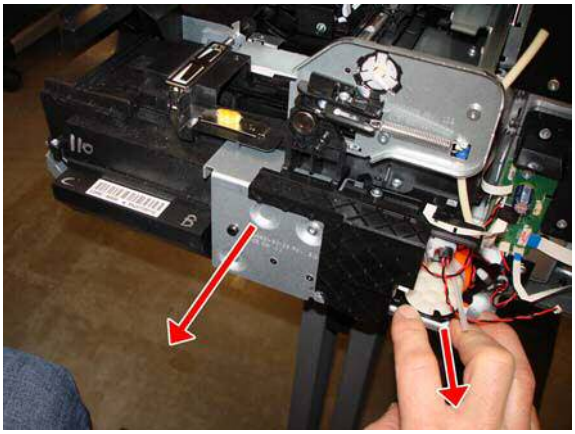
14. **Loosen only one** T-15 screw.



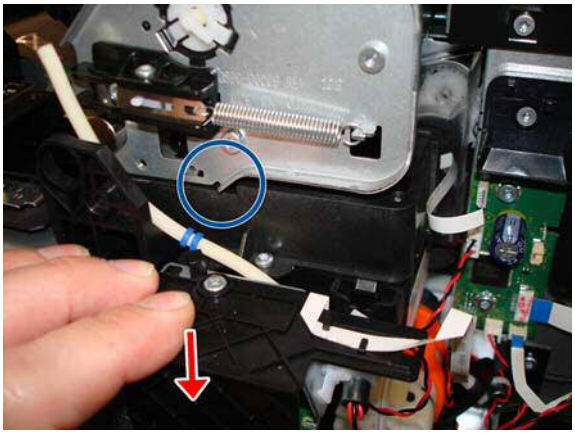
15. Rotate the Xlimiter.



16. Push down the metal sheet and slide out the Service Station.

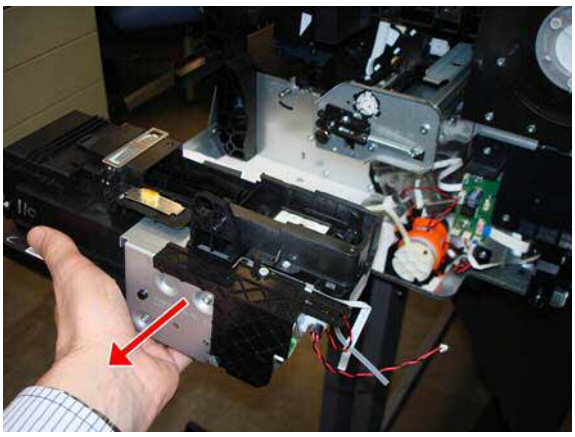


17. If, while you are sliding out the Service Station, there is an interaction with the metallic bracket, then you should push down the Service Station.



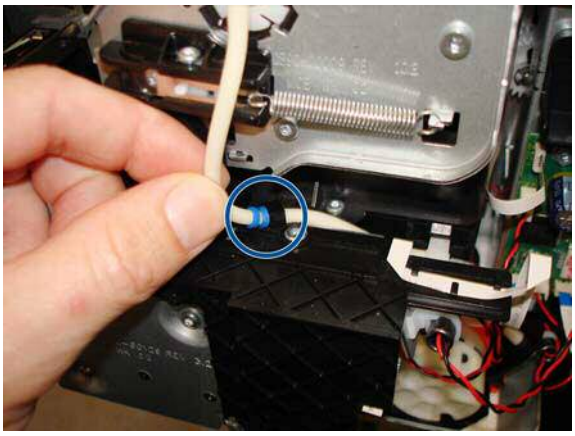
http://www.justmanuals.com

18. Remove the Service Station.



Installation

▲ Install the blue washers of the tube on the left side of the hook.

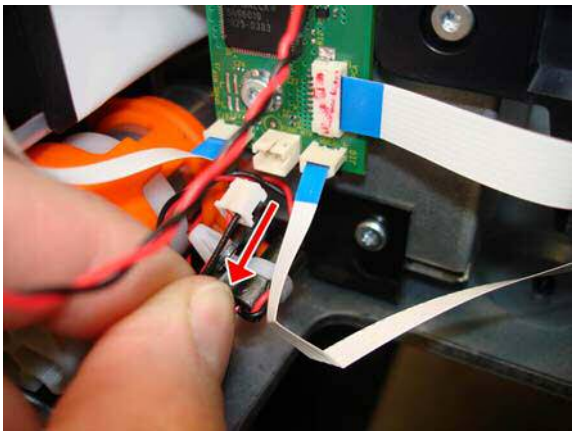


NOTE: After the successful installation of this part, perform the Preventive Maintenance Kit Reset procedure, see 3.5 PMK2 on page 124.

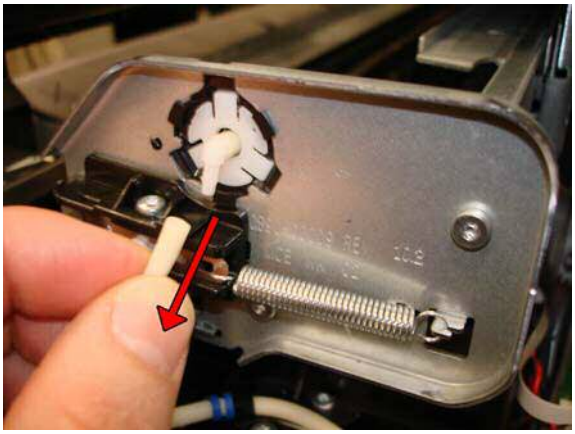
Prime Pump

Removal

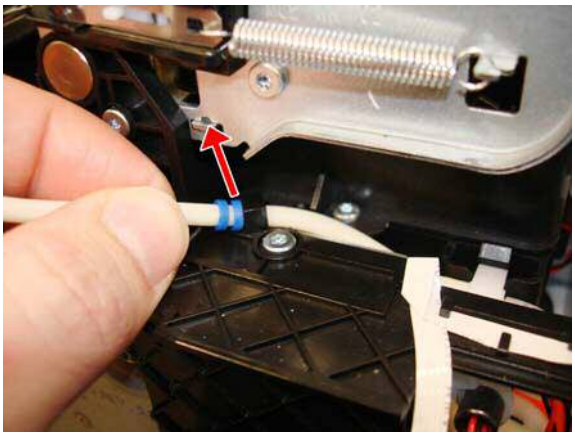
1. Switch off the printer and remove the power cable.
2. Remove the Front Cover, see Front Cover on page 150.
3. Remove the Right Cover, see Right Cover on page 153
4. Disconnect the cable.



5. Disconnect the tube.

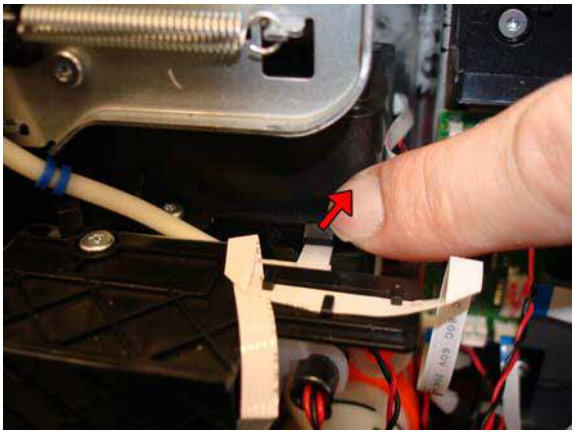


6. Unhook the cable.

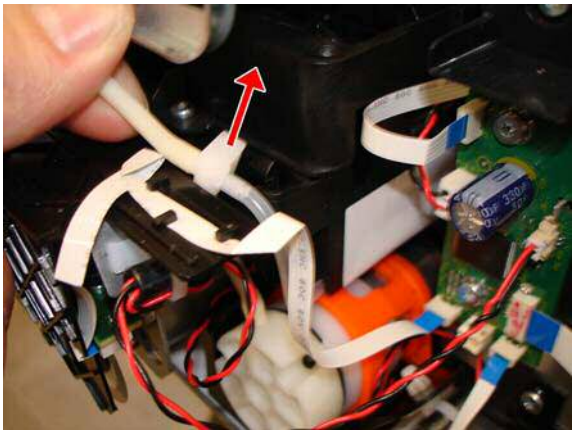


http://www.justmanuals.com

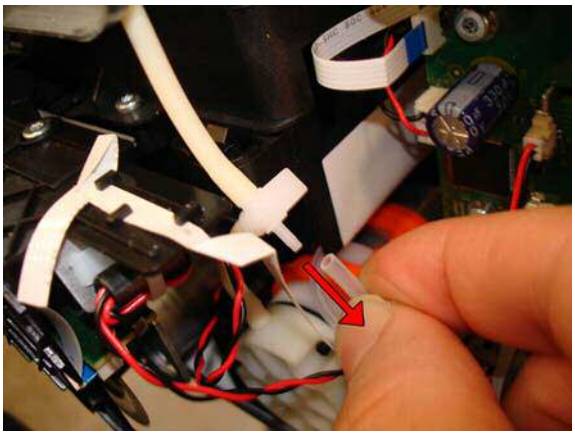
7. Unclip the Tee Pump Prime.



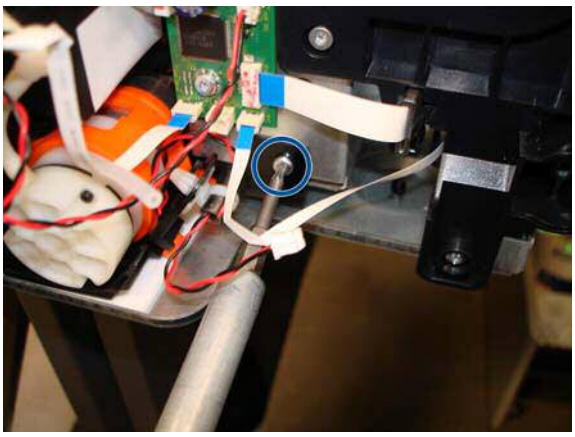
8. Remove the Tee Pump Prime.



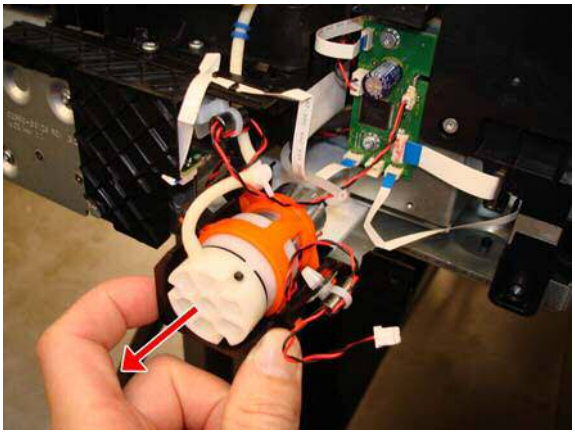
9. Disconnect the tube.



10. Remove one T-10 screw.

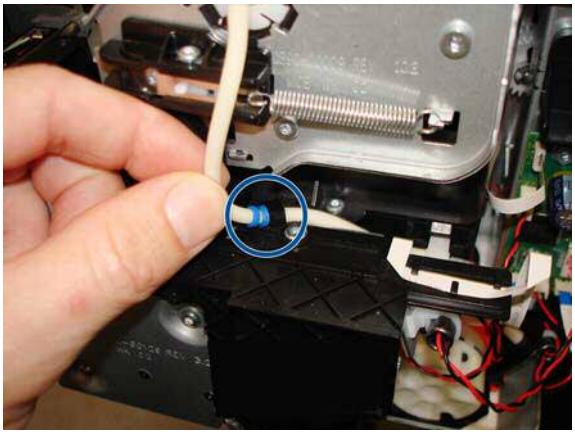


11. Remove the Prime Pump.



Installation

▲ Install the blue washers of the tube on the left side of the hook.



http://www.justmanuals.com

Carriage and Belt

Removal

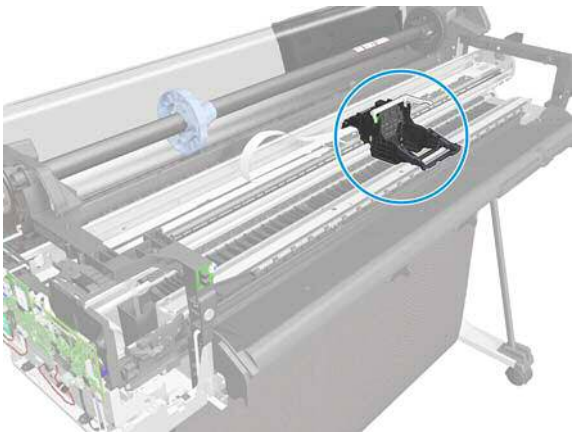
1. Switch off the printer and remove the power cable.
2. Remove the Front cover, see Front Cover on page 150.
3. Remove the Ink Cartridge Cover, see Ink Cartridge Cover on page 156.
4. Remove the Left Cover, see Left Cover on page 158.
5. Remove the Right cover, see Right Cover on page 153.
6. Remove the Front Panel, see Front Panel on page 165

TIP: If you want to power on the printer, the Front Panel can be placed on clips (without cover).

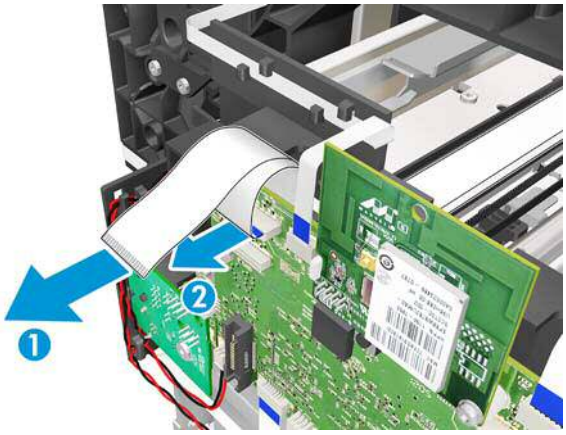
7. Remove the Central Cover, see Central Cover on page 172.
8. Remove the Service Station, see Service Station on page 227.

NOTE: Do not touch the Service Station's Encoder Disk when handling the Service Station.

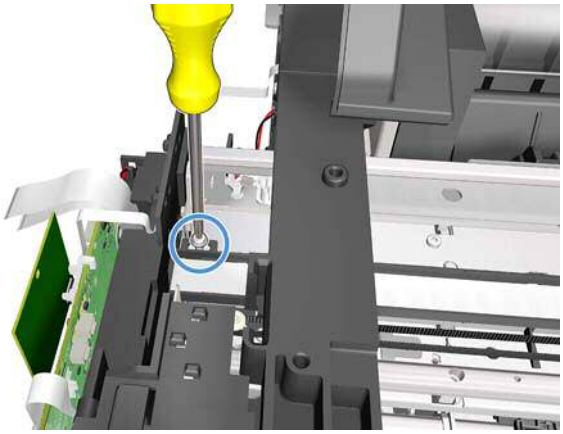
9. Remove Encoder Strip, see Encoder Strip on page 193.
10. Remove the Ink Cartridges, see Replace an ink cartridge on page 70.
11. Make sure the Carriage is in this position.



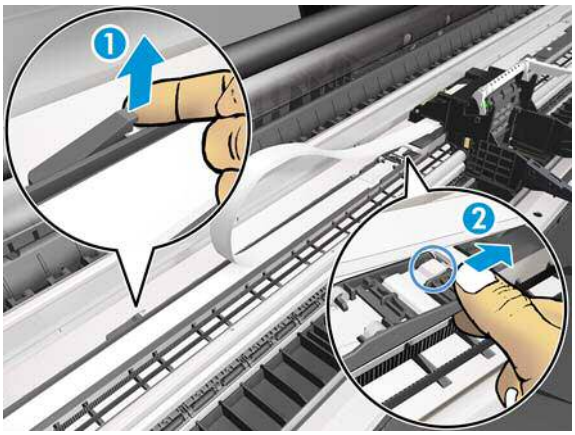
12. Disconnect the two flat cables from the PCA.



13. Remove one T-15 screw from the left side.

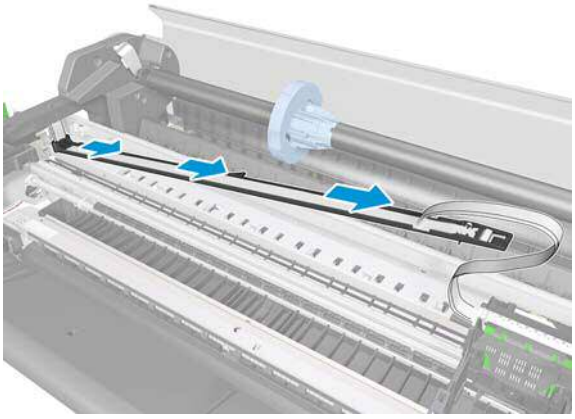


14. Unclip the trailing cable retainer clip shown here (1) and slide it to the right (2).



http://www.justmanuals.com

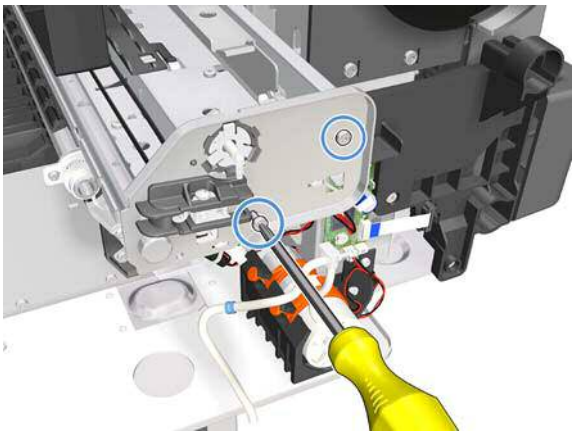
15. Slide the right backbone end plate to the right.



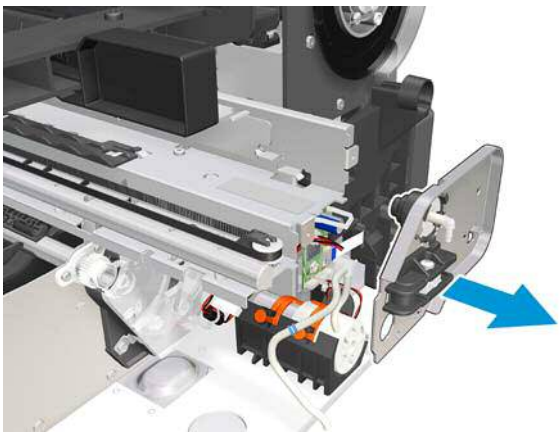
16. Leave the right backbone on the platen.



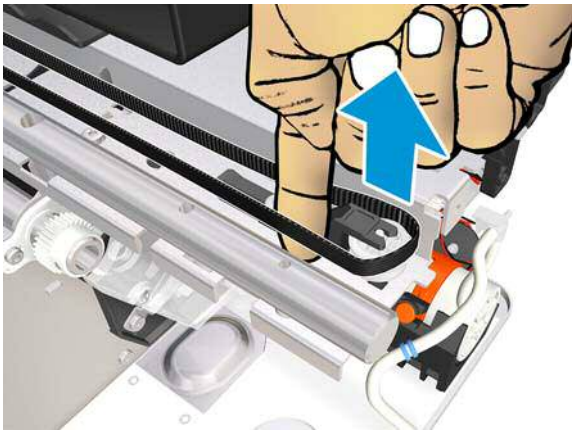
17. Remove two T-10 screws from the Right End Plate.



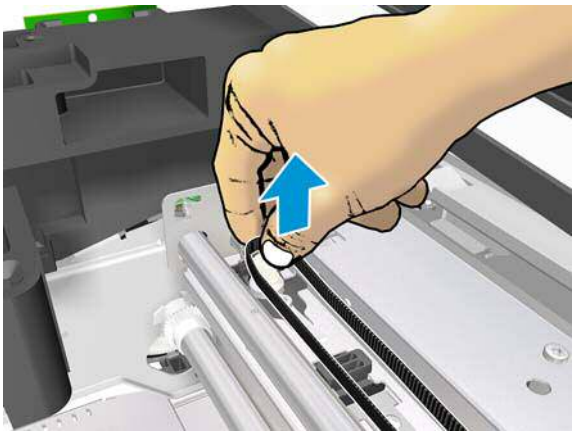
18. Remove the Right End Plate.



19. Unhook the Carriage Belt with a finger and lift it away.



20. Remove the Carriage Belt from the end pulley.

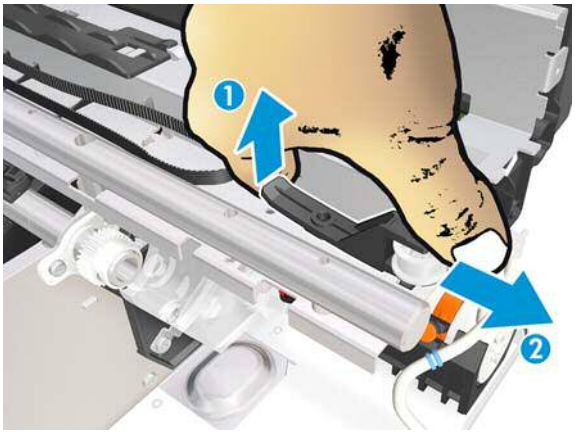


http://www.justmanuals.com

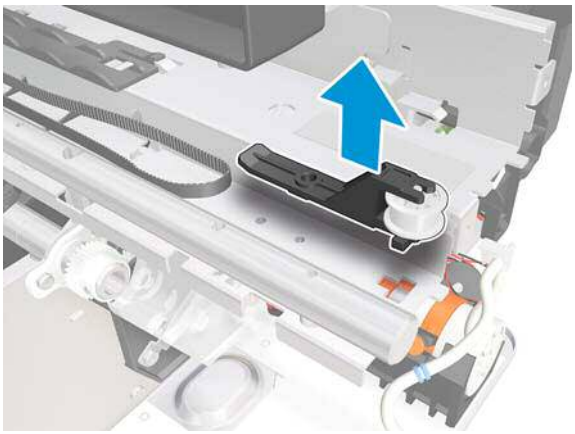
21. Remove one T-15 screw .



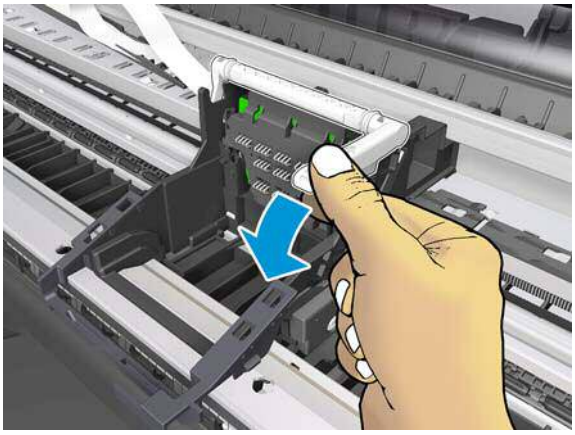
22. Unclip the pulley latch shown here (1) and slide it to the right (2).



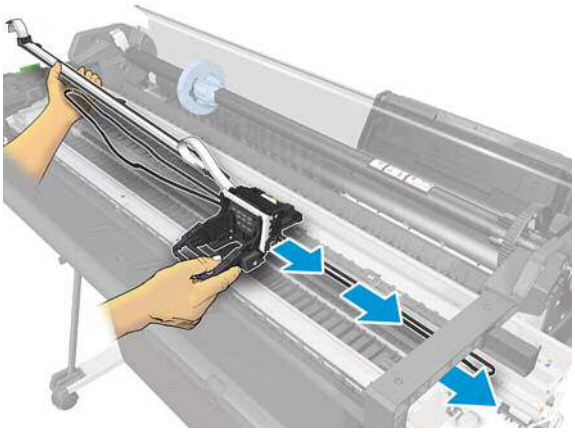
23. Remove the pulley latch..



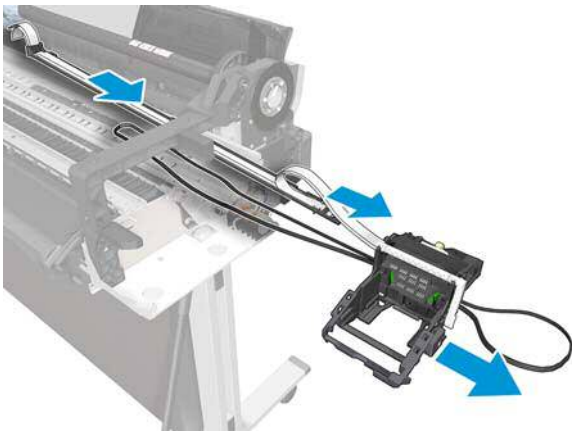
24. Pull the latch down.



25. Slide the Carriage, the Belt, and the Trailing Cable to the right.



26. Remove the Carriage Assembly.

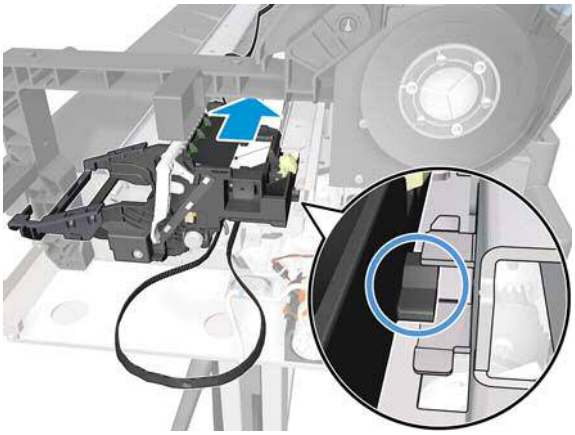


Installation

1. To reinstall the Belt, use a screwdriver to lever the Belt back on.

http://www.justmanuals.com

2. When installing the Carriage Assembly, make sure you slide the part indicated here onto the slider rod.



3. When the installation is complete, clean the Encoder Strip (see Clean the Encoder Strip on page 315) and the Line Sensor (see Clean the Carriage Line Sensor on page 314).

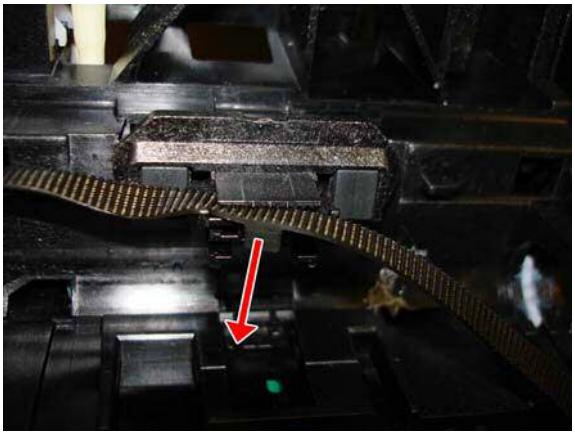
Carriage Belt

Removal

1. Switch off the printer and remove the power cable.
2. Remove the Front Cover, see Front Cover on page 150.
3. Remove the Ink Cartridge Cover, see Ink Cartridge Cover on page 156.
4. Remove the Left Cover, see Left Cover on page 158.
5. Remove the Right Cover, see Right Cover on page 153.
6. Remove the Front Panel, see Front Panel on page 165.
7. Remove the Central Cover, see Central Cover on page 172.
8. Remove the Service Station, see Service Station on page 227.
9. Remove the Ink Cartridges, see Replace an ink cartridge on page 70.
10. Remove the Encoder Strip, see Encoder Strip on page 193.
11. Remove the printhead, see Replace the printhead on page 73.
12. Remove the Carriage, see Carriage and Belt on page 236.
13. Rotate the Carriage to see the bottom side.

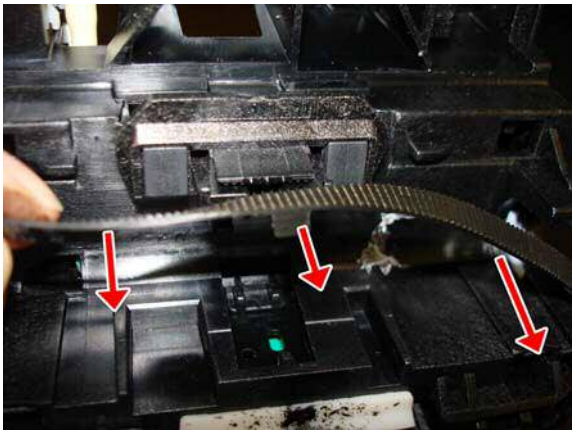


14. Slide the Carriage Belt.



http://www.justmanuals.com

15. Remove the Carriage Belt.

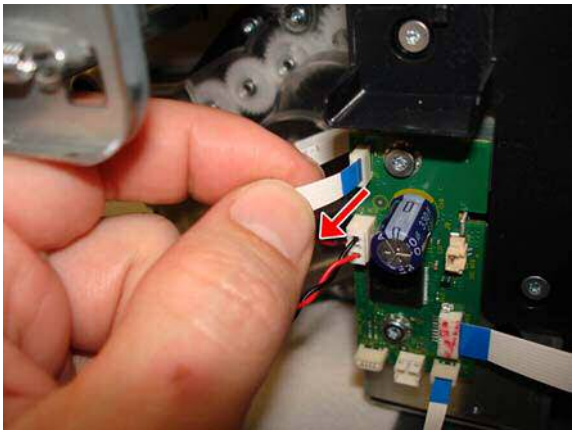


NOTE: After the successful installation of this part, perform the Preventive Maintenance Kit Reset procedure, see 3.4 PMK1 on page 124.

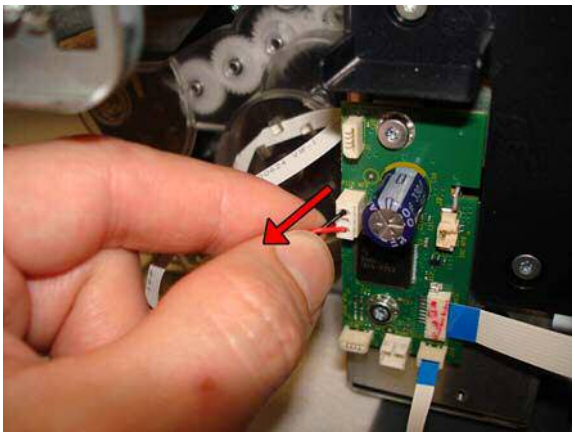
Right Gear Train Module

Removal

1. Switch off the printer and remove the power cable.
2. Remove the Front Cover, see Front Cover on page 150.
3. Remove the Right Cover, see Right Cover on page 153.
4. Remove the Service Station, see Service Station on page 227.
5. Remove the Prime Pump, see Prime Pump on page 233.
6. Remove the Multi-Sheet Tray, see Multi-Sheet Tray Assembly on page 260.
7. Disconnect the flat cable.

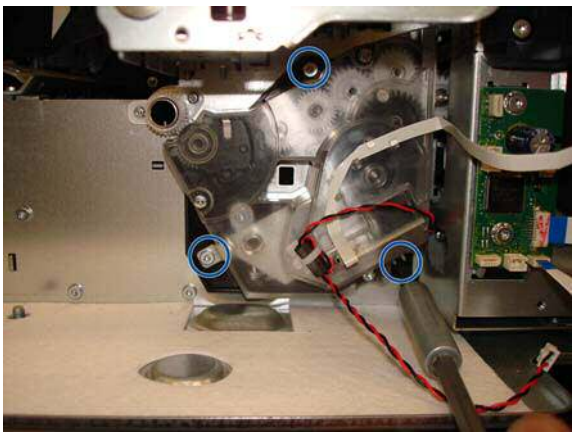


8. Disconnect the motor cable.

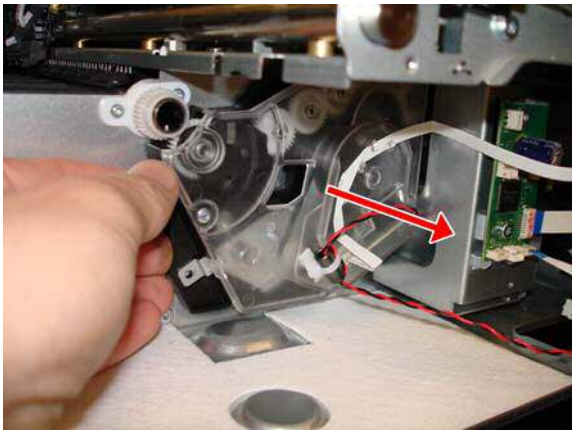


http://www.justmanuals.com

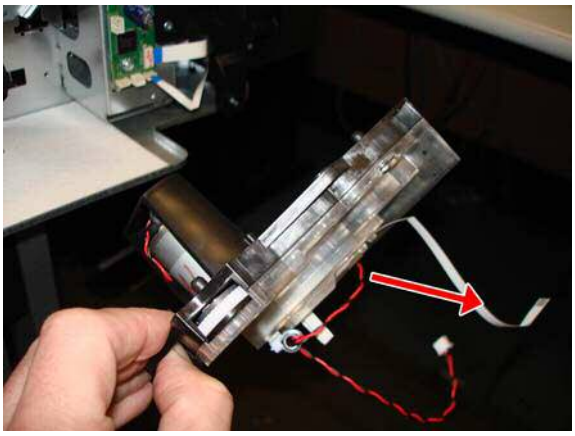
9. Remove three T-10 screws.



10. Slide the Right Gear Train Module horizontally to detach the pins.



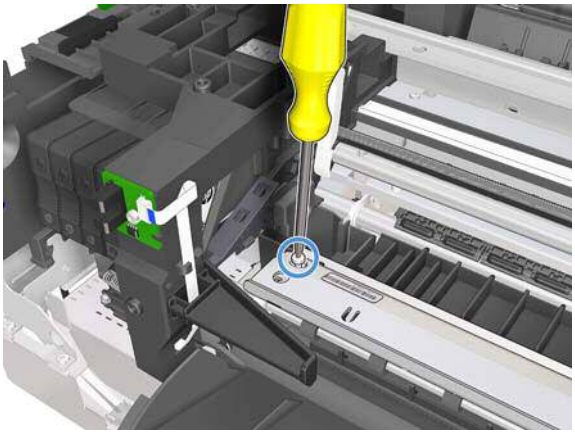
11. Remove the Right Gear Train Module.



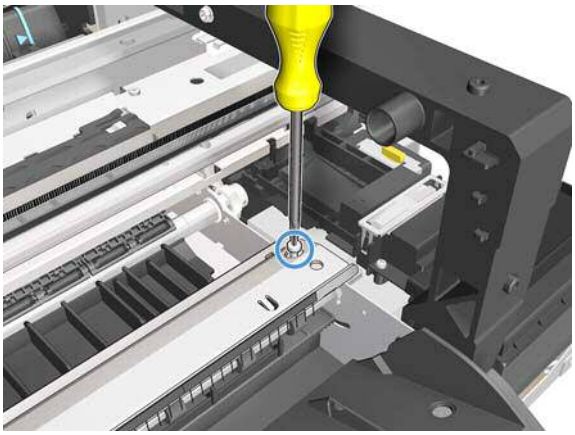
Starwheel Assembly

Removal

1. Switch off the printer and remove the power cable.
2. Remove the Front Cover, see Front Cover on page 150.
3. Remove the Ink Cartridge Cover, see Ink Cartridge Cover on page 156.
4. Remove the Left Cover, see Left Cover on page 158.
5. Remove the Right Cover, see Right Cover on page 153.
6. Remove the Front Panel, see Front Panel on page 165.
7. Remove the Central Cover, see Central Cover on page 172.
8. Remove one T-10 screw on the left side of the Starwheel Assembly.

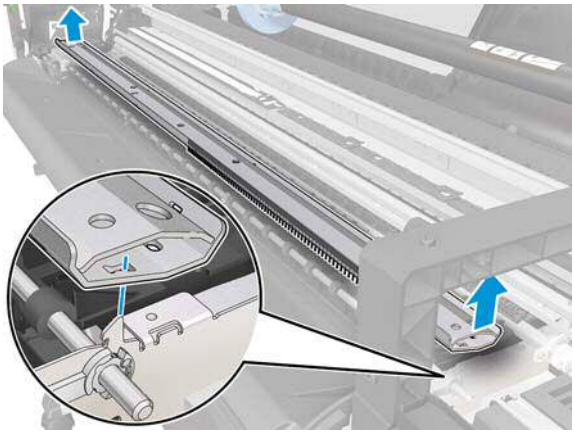


9. Remove one T-10 screw on the right side of the Starwheel Assembly.

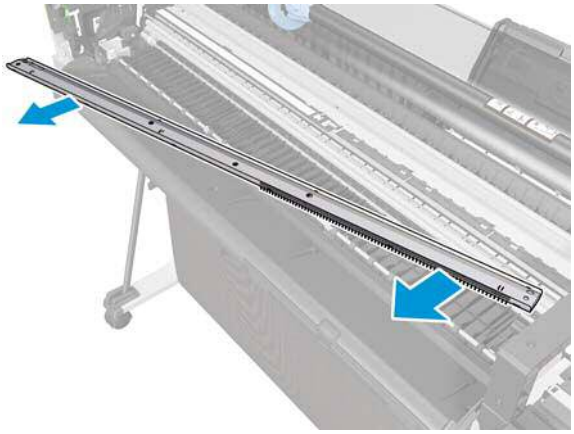


http://www.justmanuals.com

10. Detach the Starwheel Assembly from the two hooks by sliding it up.



11. Remove the Starwheel Assembly.



Installation

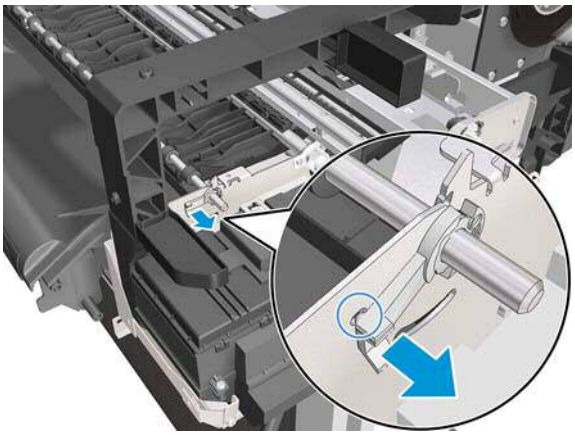
▲ When installing the Starwheel Assembly, make sure it is located correctly on the hooks.



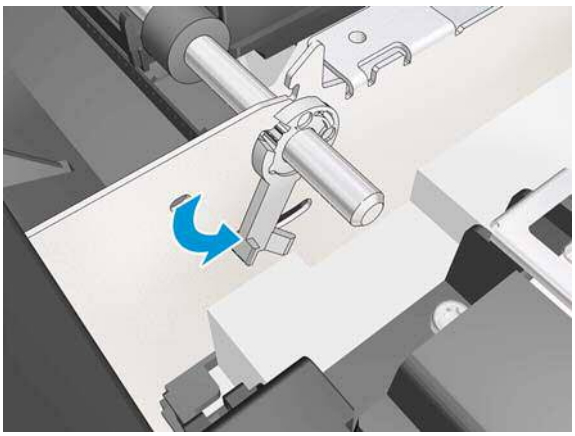
Output Shaft

Removal

1. Switch off the printer and remove the power cable.
2. Remove the Front Cover, see Front Cover on page 150.
3. Remove the Ink Cartridge Cover, see Ink Cartridge Cover on page 156.
4. Remove the Left Cover, see Left Cover on page 158.
5. Remove the Right Cover, see Right Cover on page 153.
6. Remove the Front Panel, see Front Panel on page 165.
7. Remove the Central Cover, see Central Cover on page 172.
8. Remove the Main PCA, see Main PCA on page 205.
9. Remove the Starwheel, see Starwheel Assembly on page 247.
10. Uncap the Carriage and move it to the left of the printer.
11. Pull the Right Bearing to unclip it from the hole.

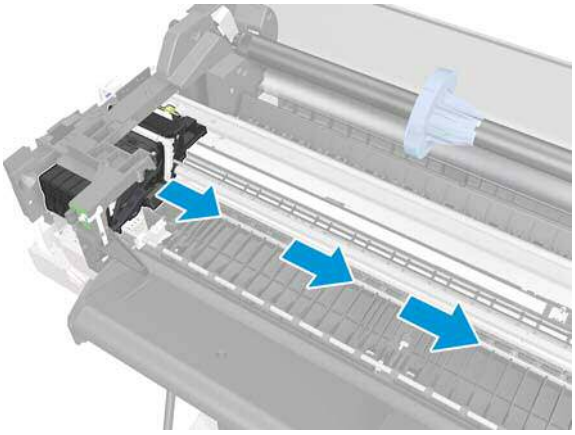


12. Rotate the Right Bearing.



http://www.justmanuals.com

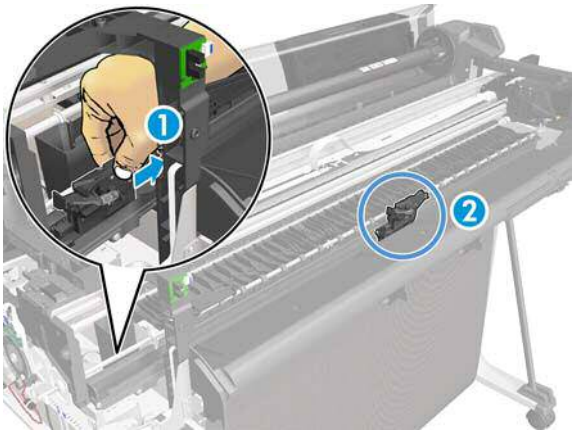
13. Move the Carriage from the left to the right side of the printer.



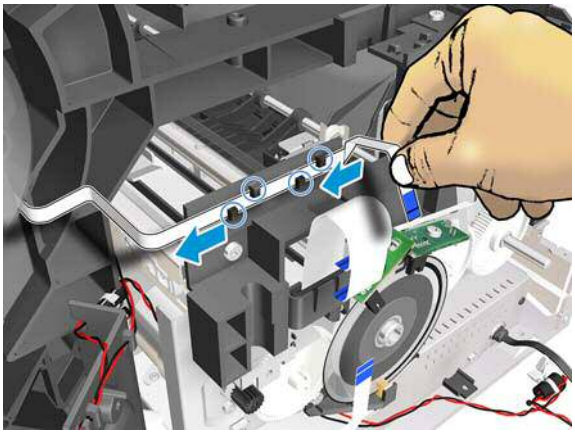
14. Leave the Carriage as shown below, without touching it with the Output Shaft.



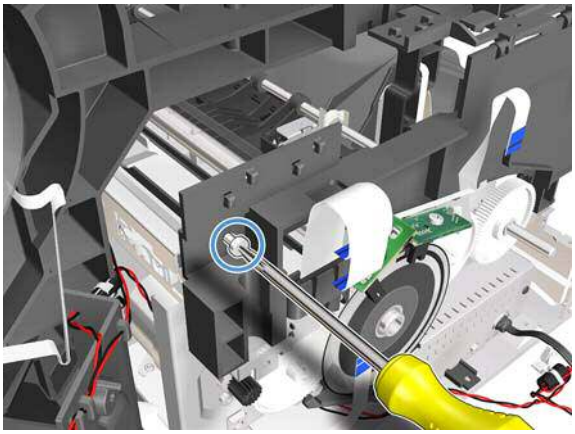
15. Move the cutter to the right and leave it in the middle of the Platen.



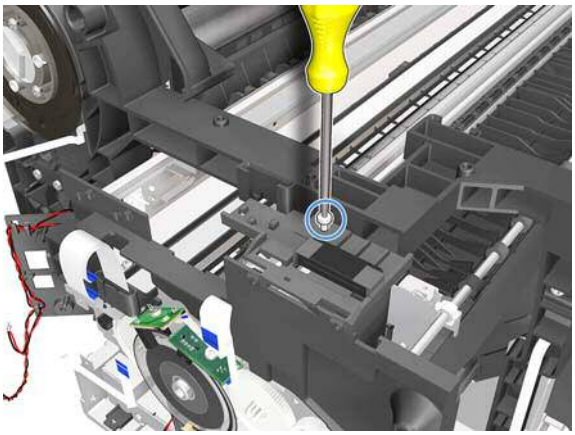
16. Unroute the flat cable.



17. Remove one T-10 screw.

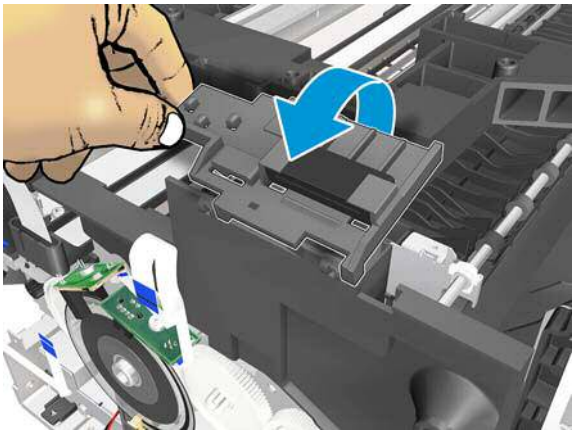


18. Remove one T-10 screw.

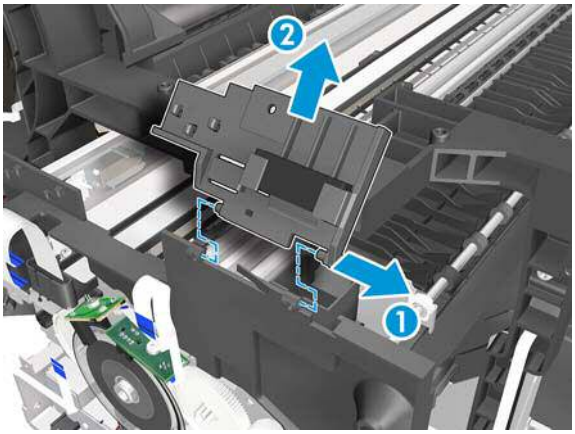


http://www.justmanuals.com

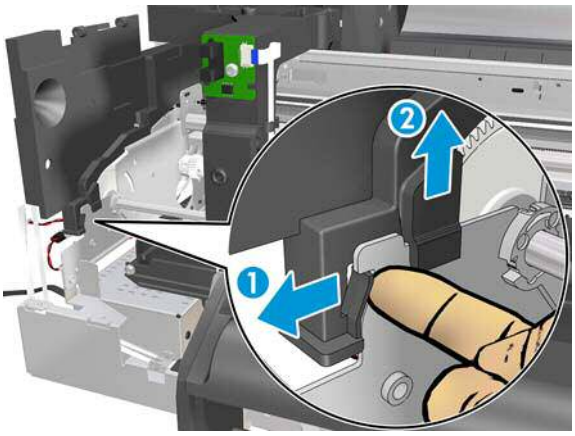
19. Rotate the Bridge FFC.



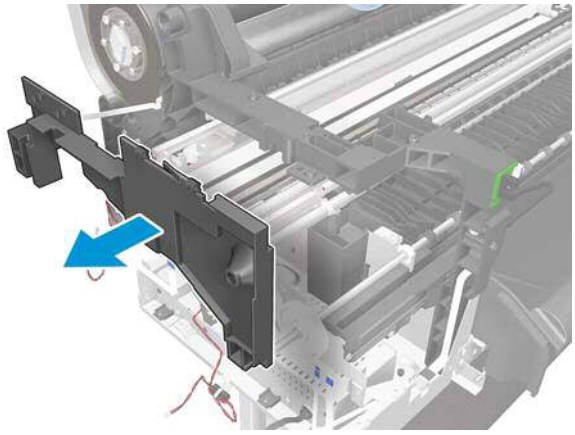
20. Slide the Bridge FFC (1) and remove it (2).



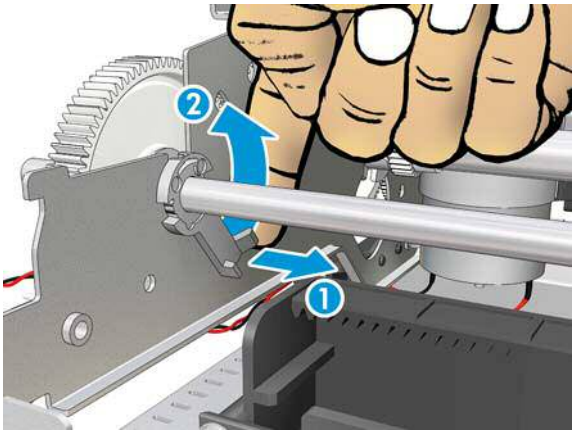
21. Detach the Main PCA Cover from the bracket.



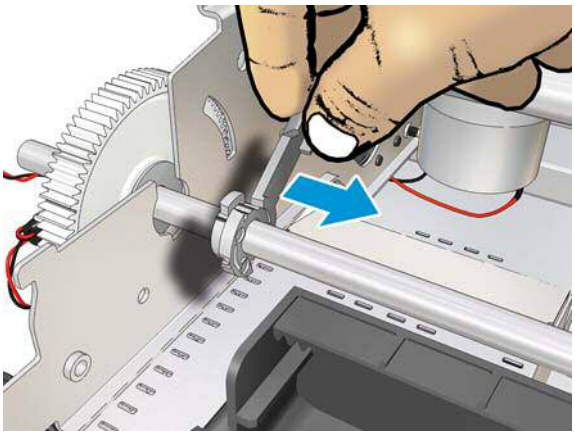
22. Remove the Main PCA Cover.



23. Pull the Left Bearing to unclip it from the hole (1), then rotate it (2).

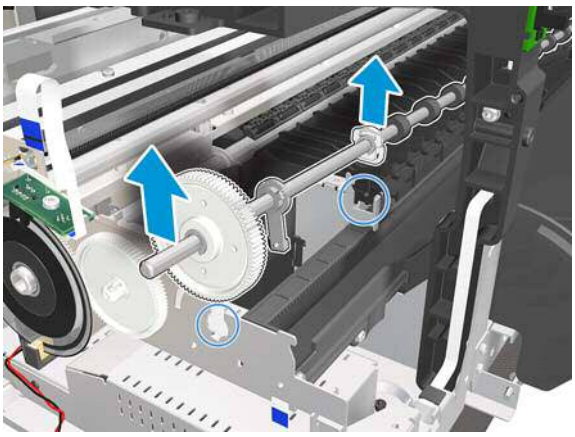


24. Slide the Left Bearing to the right.

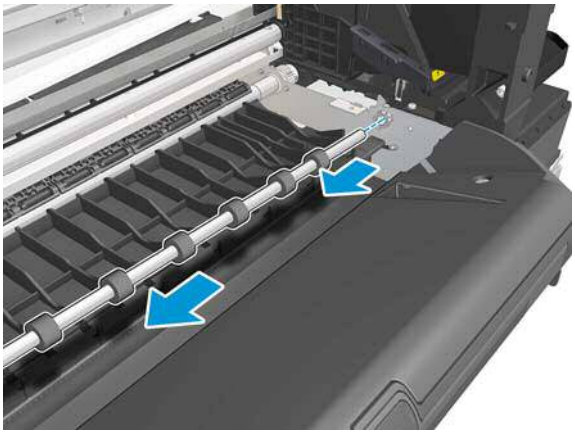


http://www.justmanuals.com

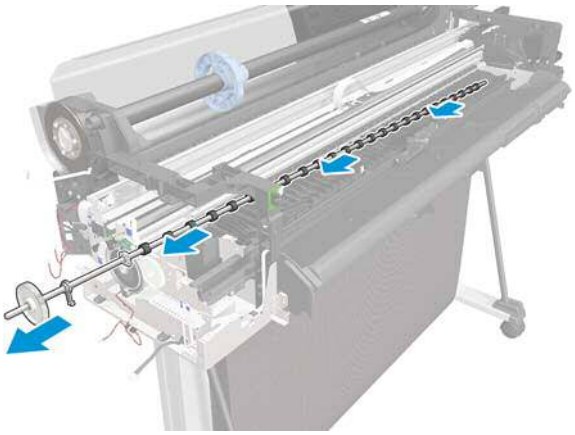
25. Move the Output Shaft up to detach the Middle Bearing.



26. Slide the Output Shaft to the left to release it from the hole.

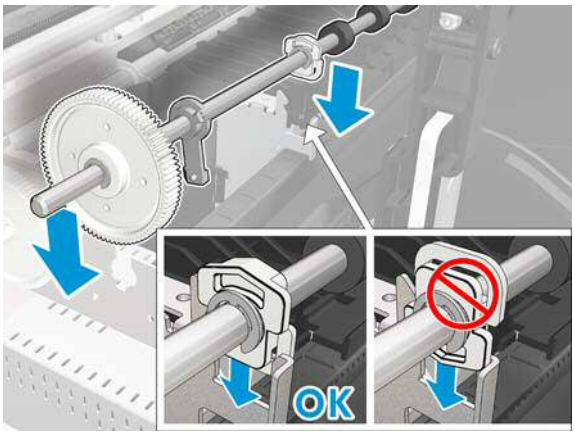


27. Remove the Output Shaft .

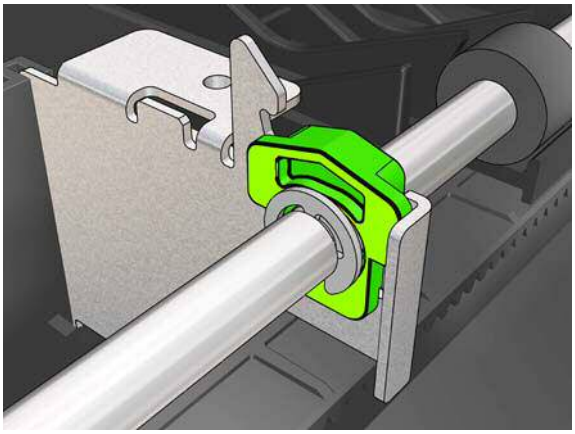


Installation

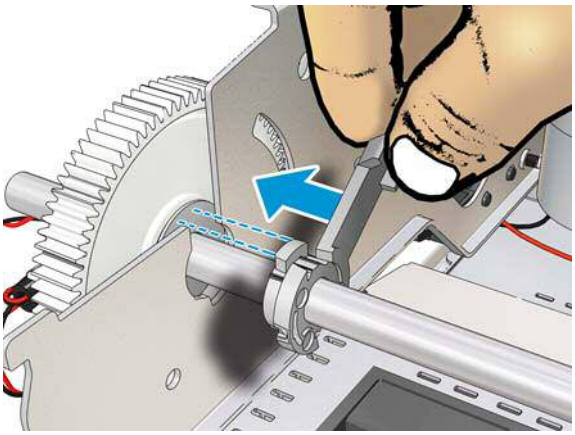
1. If you find the Middle Bearing mounted from the factory in a different position (rotated by 180°), this is also correct.



2. Make sure the Middle Bearing is mounted correctly.

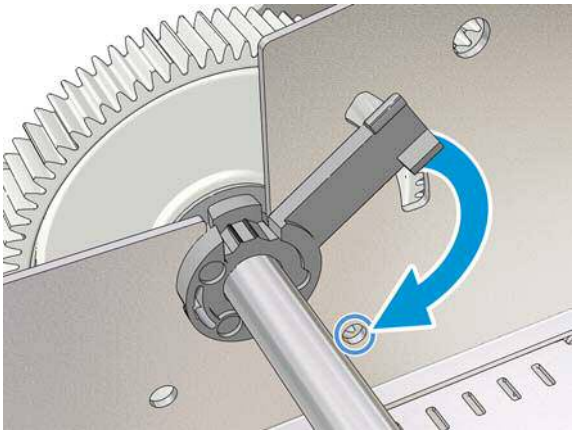


3. Put the Left Bearing in this position to mount to the left bracket.



http://www.justmanuals.com

4. Rotate the Left Bearing until it clips into the hole.



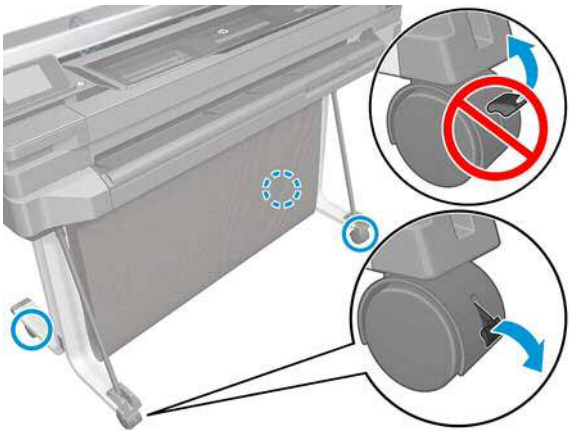
Output Tray

Removal

1. Turn off the printer.



2. Lock the castors of the printer's stand.

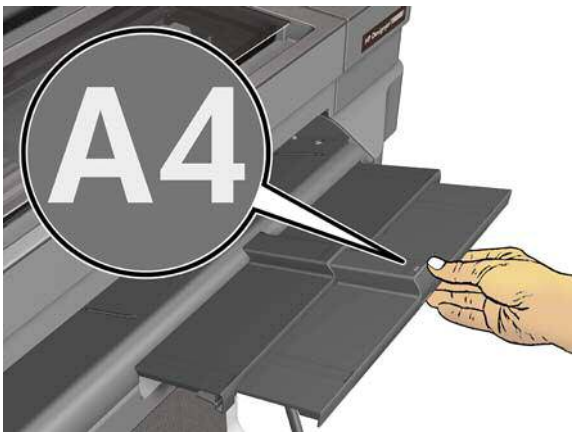


3. Pull out the Output Tray.

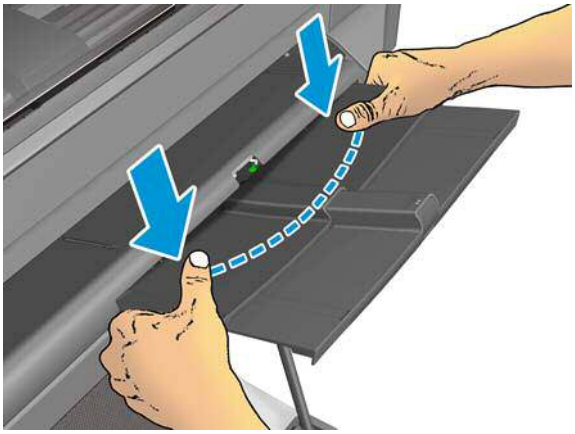


http://www.justmanuals.com

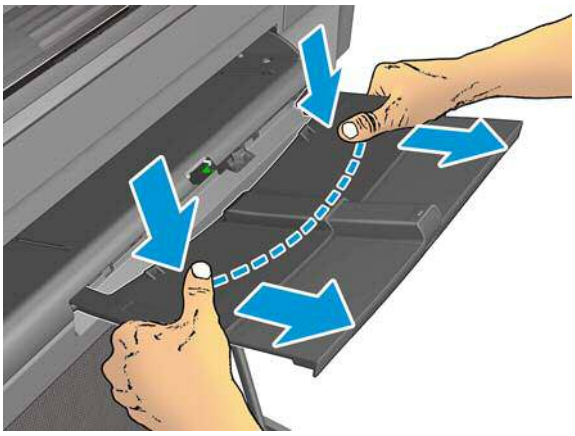
4. Pull out the Output Tray to the A4 position.



5. Bend the Output Tray slightly as shown below.



6. At the same time, pull out the Output Tray.



7. Remove the Output Tray.

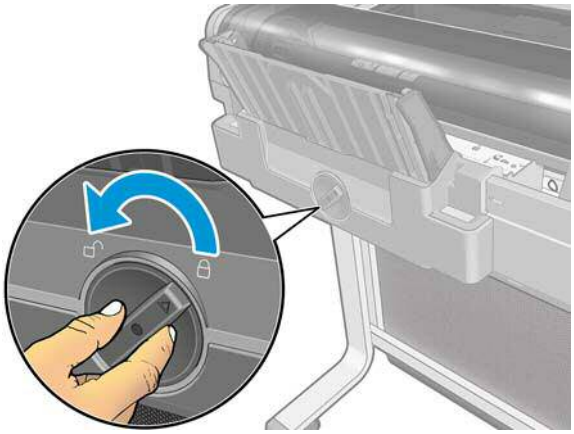


http://www.justmanuals.com

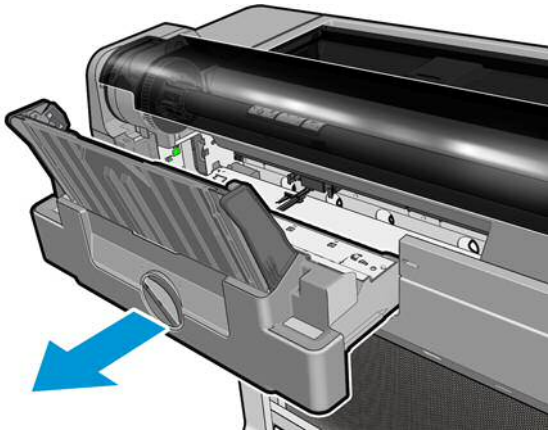
Multi-Sheet Tray Assembly

Removal

1. Unlock the Multi-Sheet Tray Assembly .



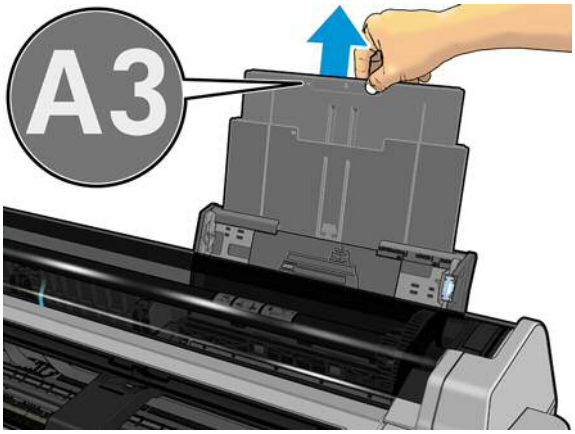
2. Pull out the Multi-Sheet Tray Assembly.



Multi-Sheet Tray Assembly Extensions

Removal

1. Pull out the Multi-Sheet Tray Assembly Extensions to the A3 position.



2. Unclip the Extensions from the assembly.



3. Bend the Extensions slightly as shown below.



http://www.justmanuals.com

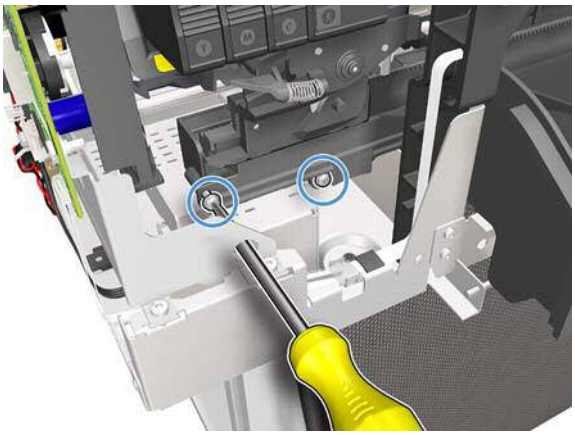
4. Remove the Extensions.



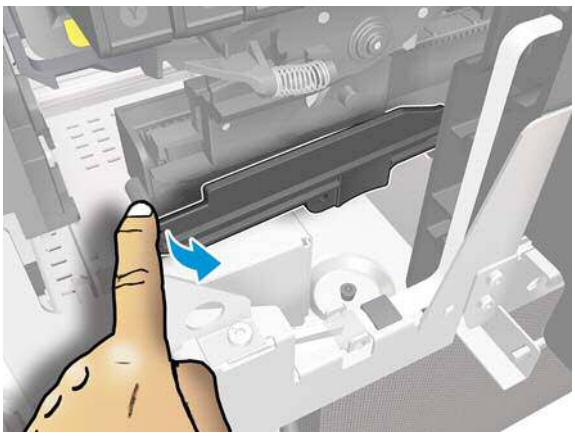
Output Platen

Removal

1. Switch off the printer and remove the power cable.
2. Remove the Front Cover, see Front Cover on page 150.
3. Remove the Ink Cartridge Cover, see Ink Cartridge Cover on page 156.
4. Remove the Left Cover, see Left Cover on page 158.
5. Remove the Right Cover, see Right Cover on page 153.
6. Remove the Front Panel, see Front Panel on page 165.
7. Remove the Central Cover, see Central Cover on page 172.
8. Remove the Output Tray, see Output Tray on page 257.
9. Remove two T-10 screws.

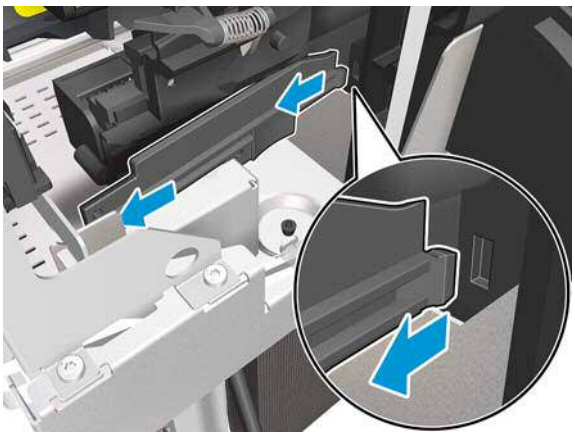


10. Pull out the left side of the Cutter Extraction Lid.

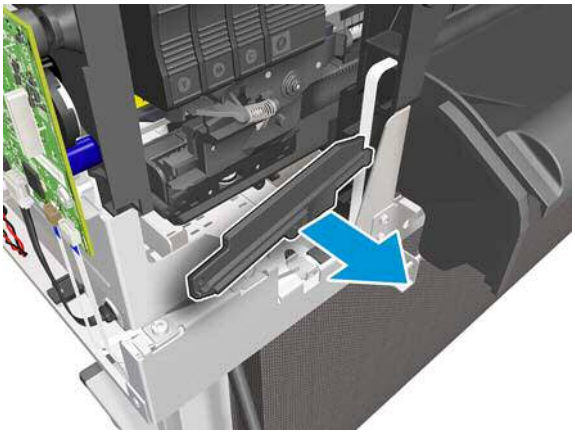


http://www.justmanuals.com

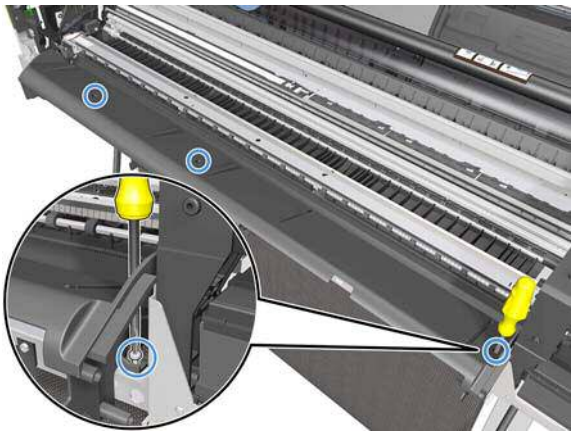
11. Slide the Cutter Extraction Lid to the left to detach it from the hole.



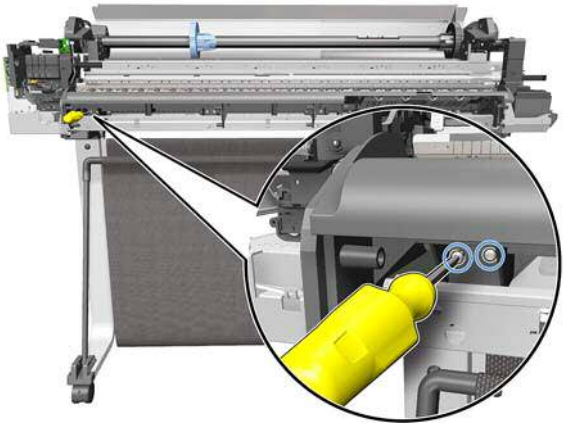
12. Remove the Cutter Extraction Lid.



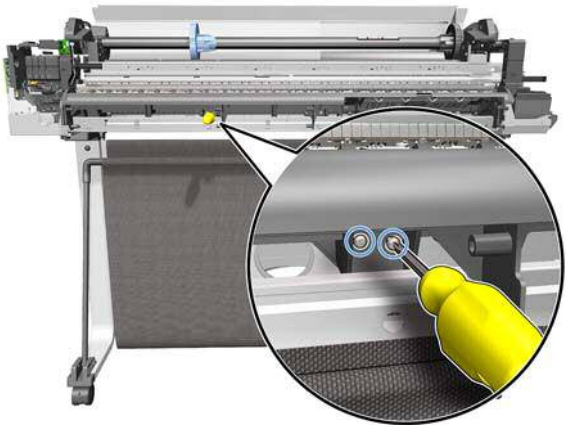
13. Remove T-10 screws:
    - 36 inch printer:
        - 3 vertical screws
        - 7 horizontal screws
    - 24 inch printer:
        - 2 vertical screws
        - 5 horizontal screws



14. Remove two T-10 screws.

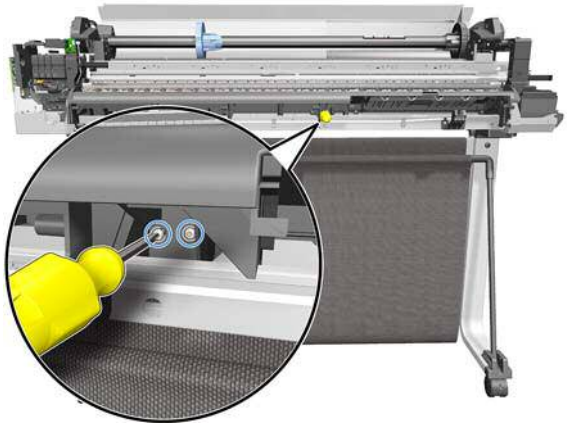


15. Remove two T-10 screws.

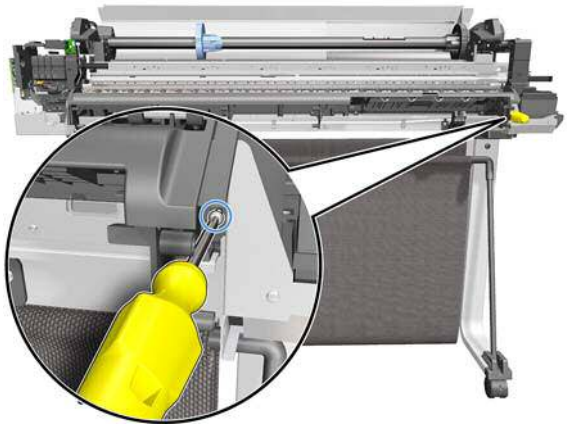


http://www.justmanuals.com

16. Remove two T-10 screws.



17. Remove one T-10 screw.

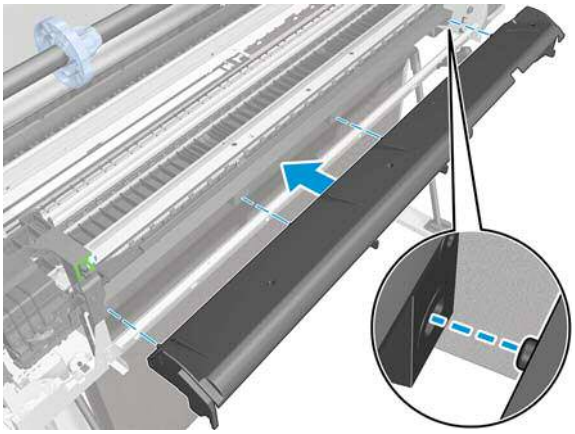


18. Remove the Output Platen.

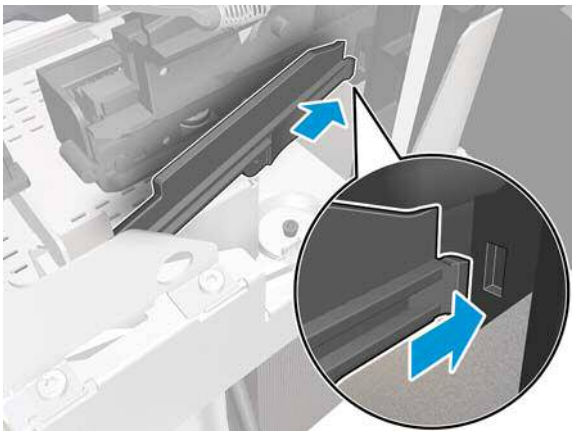


Installation

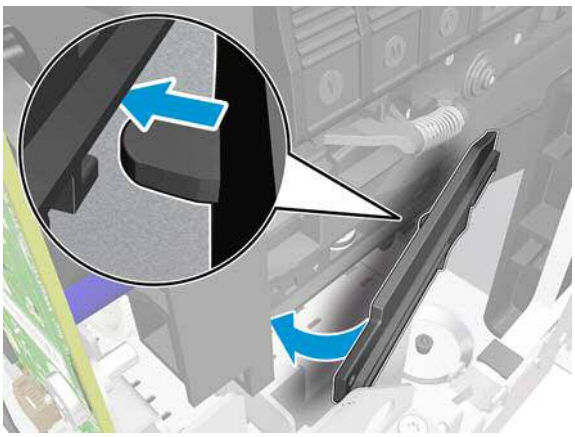
1. There are 4 pins and locators when mounting the Output Platen.



2. Introduce the Cutter Extraction Lid into the hole.



3. Ensure that the part indicated below is located correctly as you install it.

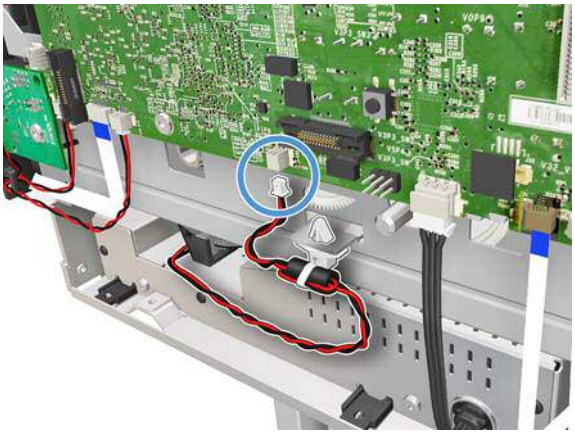


http://www.justmanuals.com

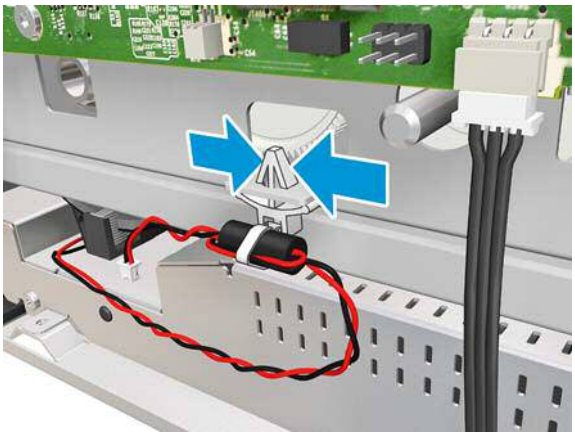
Carriage Motor

Removal

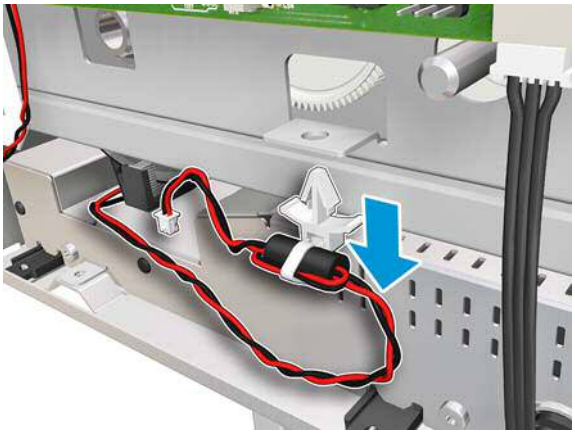
1. Switch off the printer and remove the power cable.
2. Remove the Front Cover, see Front Cover on page 150.
3. Remove the Ink Cartridge Cover, see Ink Cartridge Cover on page 156.
4. Remove the Left Cover, see Left Cover on page 158.
5. Remove the Front Panel, see Front Panel on page 165.
6. Remove the Power Supply, see Power Supply on page 202.
7. Disconnect the Carriage Motor Cable.



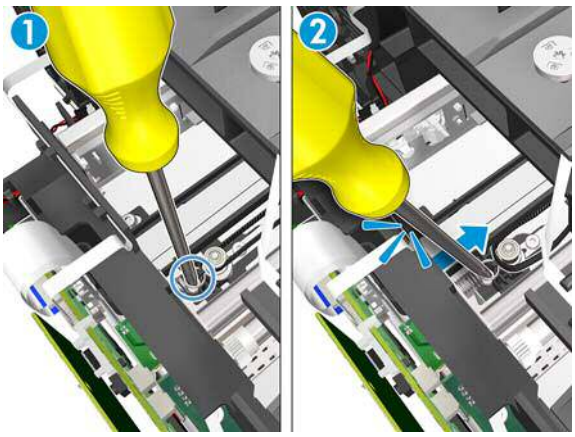
8. Unclip it from the holder in the chassis.



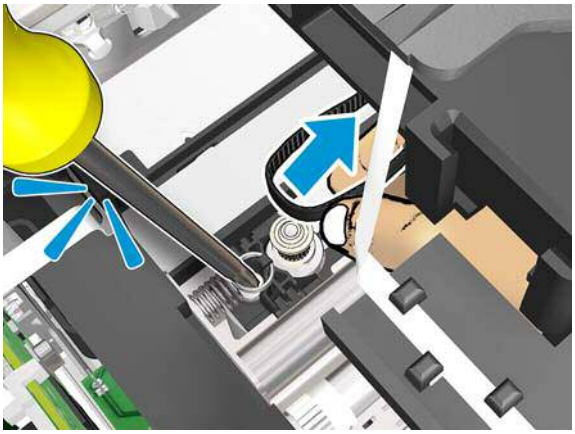
9. Remove the Carriage Motor Cable.



10. Keep the screwdriver inserted while levering and at the same time releasing the left end of the Belt from the Carriage Pulley Motor.



11. Remove the Carriage Belt from the pulley.

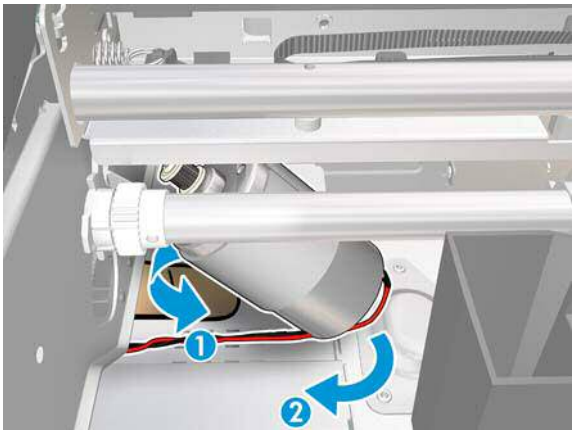


http://www.justmanuals.com

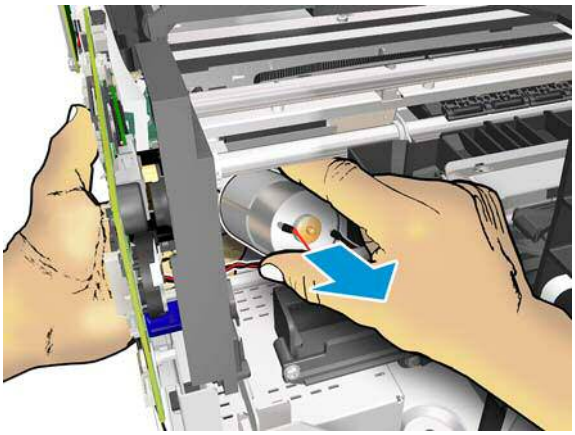
12. Remove two T-15 screws.



13. Rotate the Carriage Motor to have better access to it.

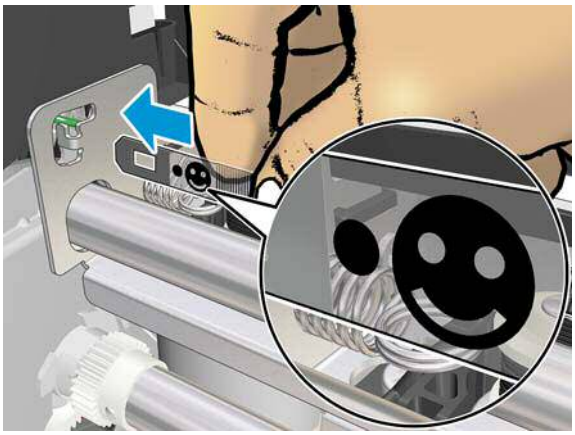


14. Remove the Carriage Motor.



Installation

- When you attach the left end of the Encoder Strip to the hook, make sure the position of the face is as shown below.



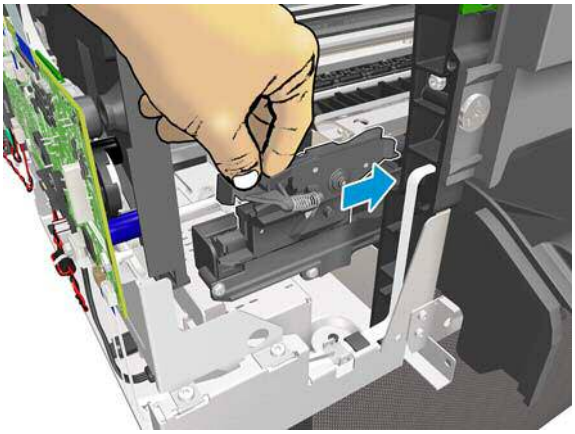
http://www.justmanuals.com

Cutter Assembly

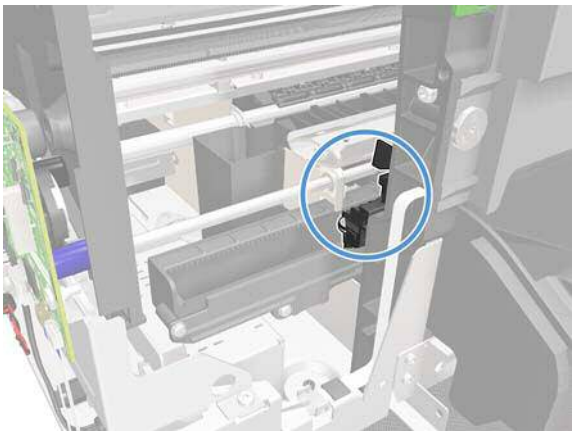
Cutter

Removal

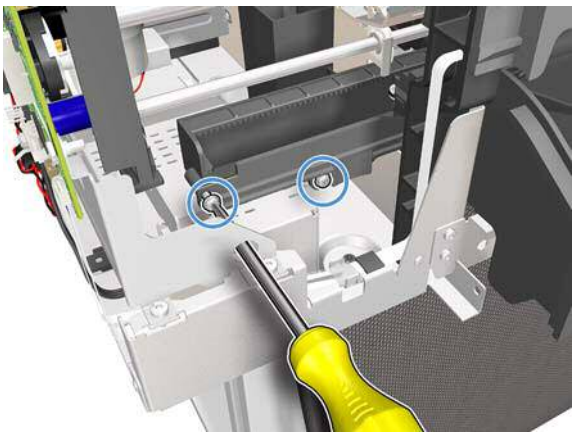
1. Switch off the printer and remove the power cable.
2. Remove the Front Cover, see Front Cover on page 150.
3. Remove the Ink Cartridge Cover, see Ink Cartridge Cover on page 156.
4. Remove the Left Cover, see Left Cover on page 158.
5. Move the Cutter to the right.



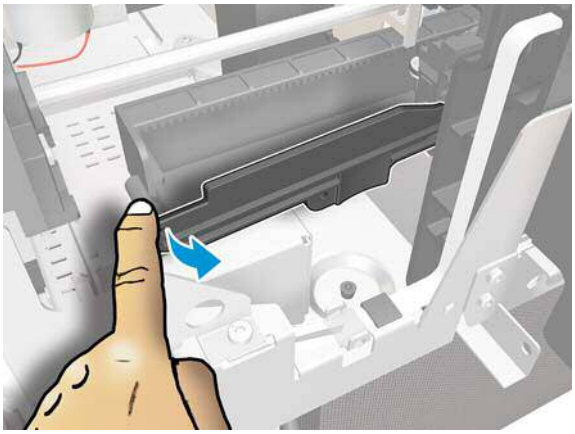
6. Leave the Cutter in this position.



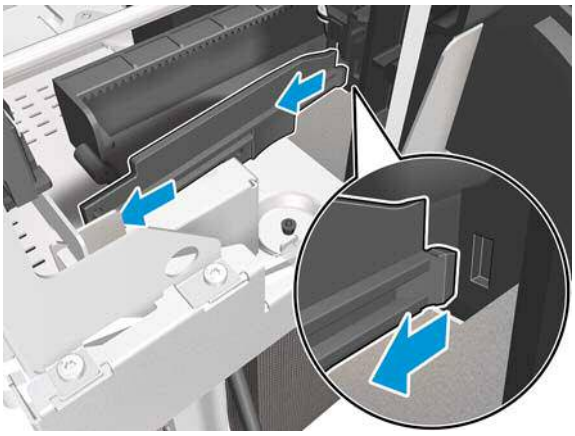
7. Remove two T-10 screws.



8. Pull out the left side of the Cutter Extraction Lid.

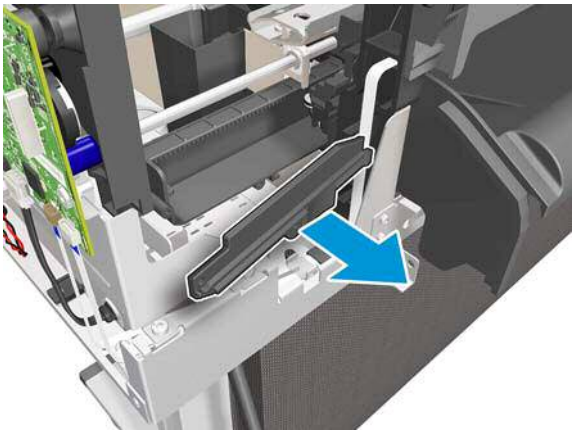


9. Slide the Cutter Extraction Lid to the left to detach it from the hole.

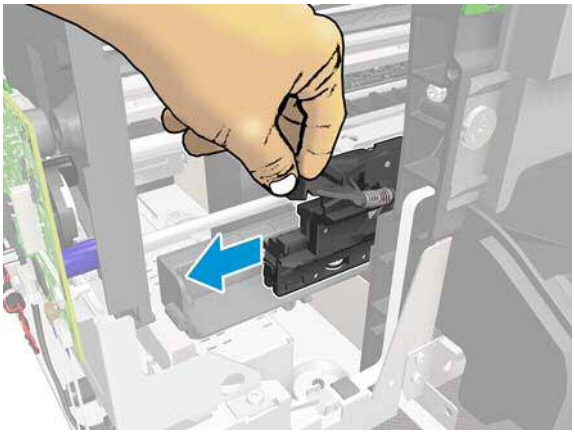


http://www.justmanuals.com

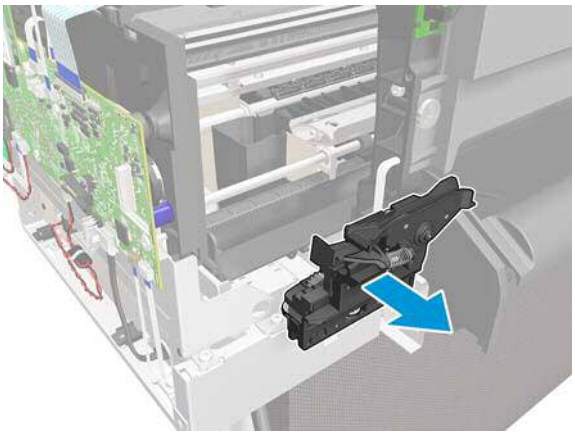
10. Remove the Cutter Extraction Lid.



11. Move the Cutter to the left.

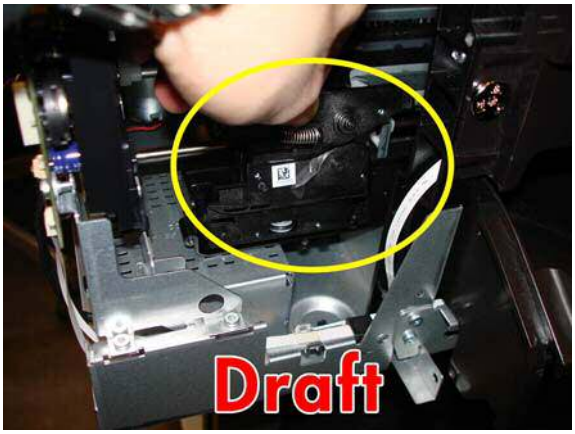


12. Remove the Cutter.

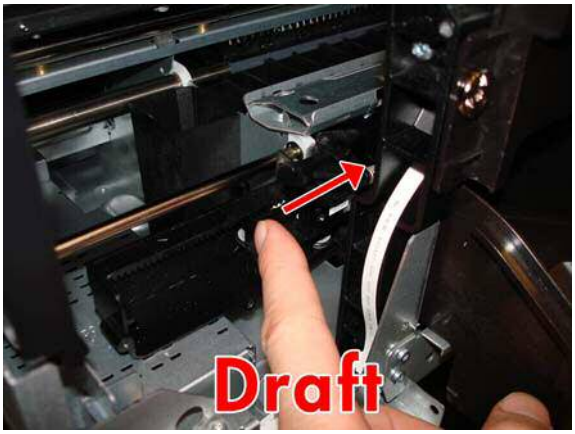


Installation

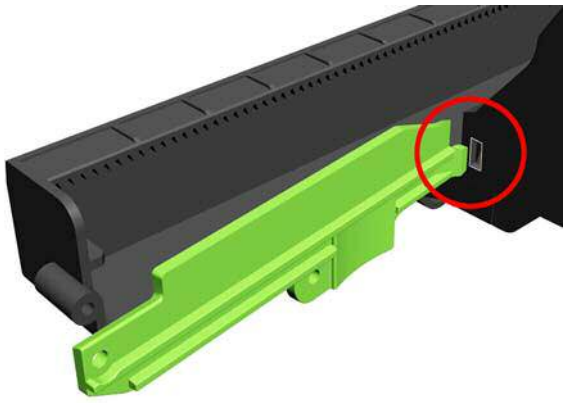
1. Mount the Cutter.



2. Move the Cutter to the right. Make sure that the cutter gears keep below the cutter guide rack and engage perfectly with it.



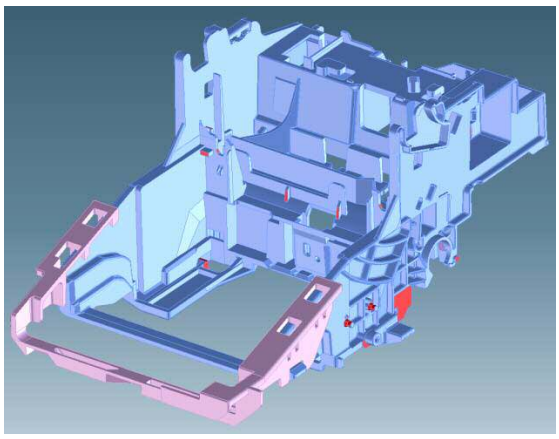
3. Introduce the Cutter Extraction Lid into the hole.



http://www.justmanuals.com

Cutter Bridge

The Cutter Bridge is attached to the front of the Carriage as shown below:

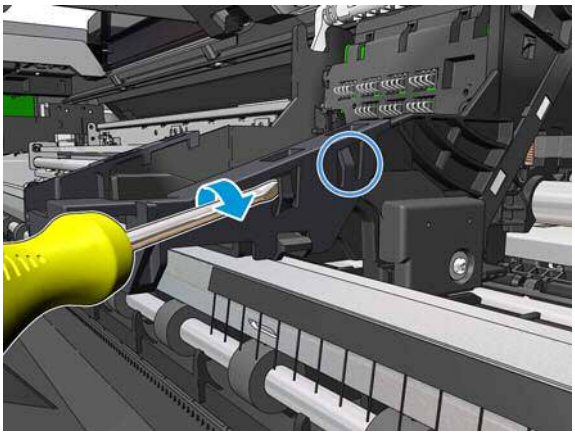


Removal

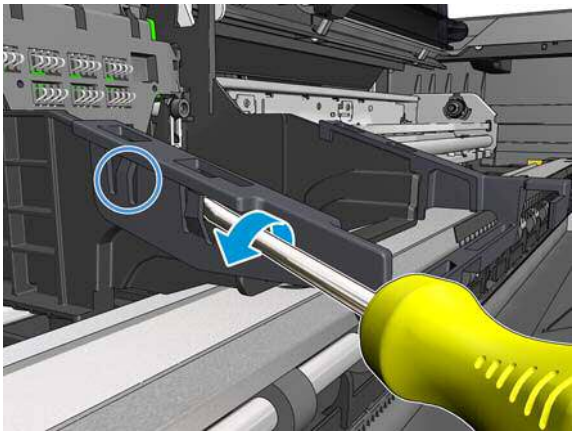
1. Remove the Ink Cartridges and the Printhead Assembly, see Replace the printhead on page 73.
2. Switch off the printer and remove the power cable.
3. Ensure that the Carriage is in the center of the Platen, where you can easily access it.



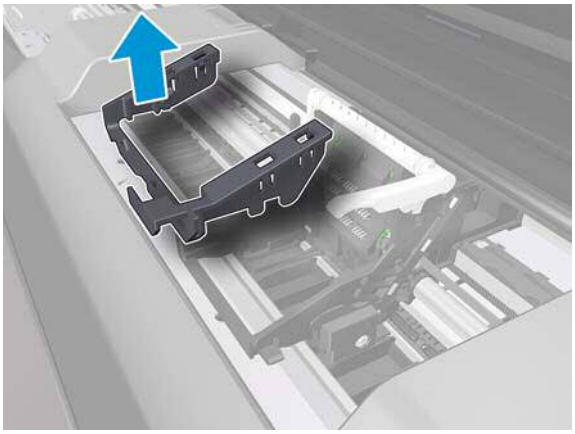
4. Use the tool provided with the Cutter Assembly Kit to lever up the two prongs attaching the Cutter Bridge to the right-hand side of the Carriage.



5. Use the tool again to lever up the two prongs attaching the Cutter Bridge to the left-hand side of the Carriage.

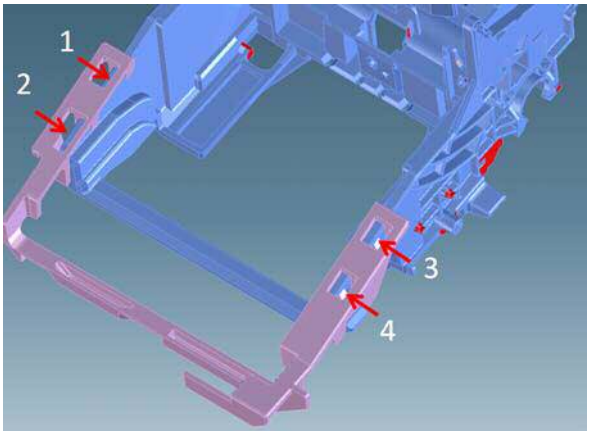


6. Remove the Cutter Bridge.



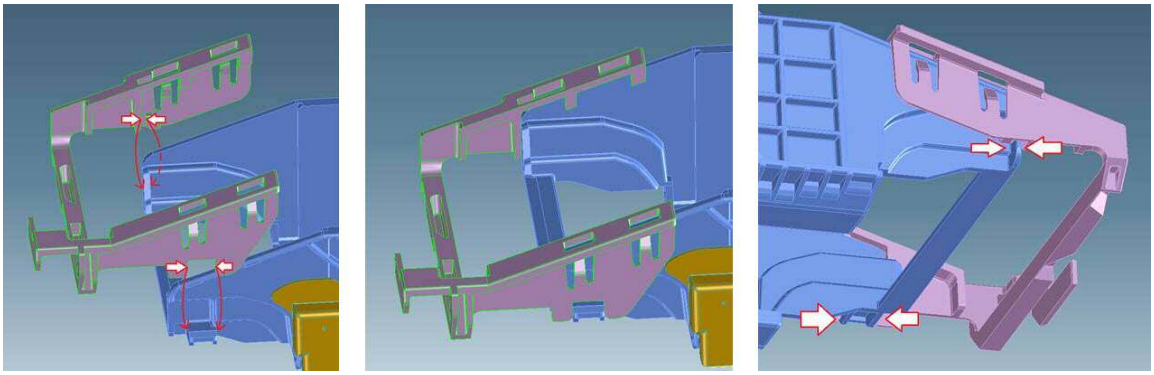
Installation

1. Position the new Cutter Bridge above the Carriage and press down.

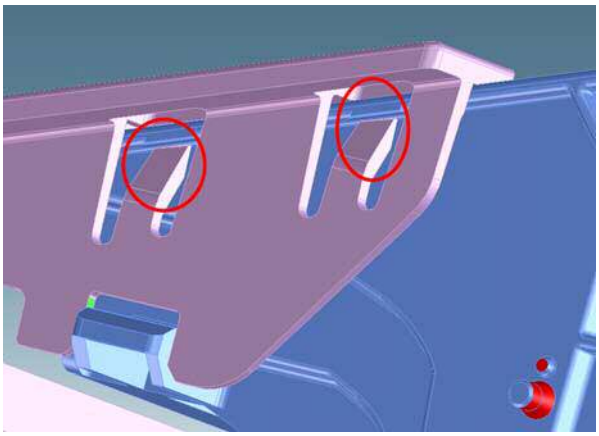


http://www.justmanuals.com

2. The Cutter Bridge is designed to fit over features of the Carriage.



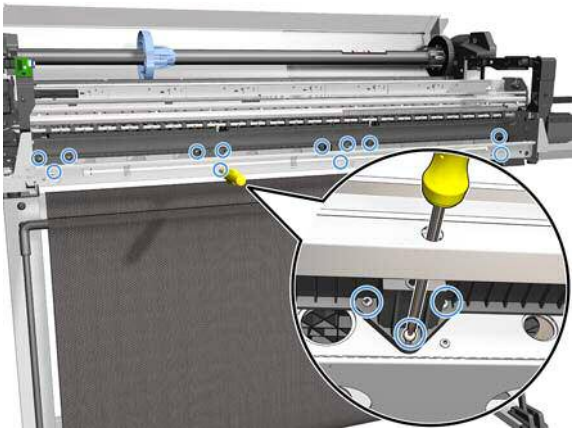
3. Use the tool provided with the Cutter Assembly Kit to press each of the four prongs attaching the Cutter Bridge to the Carriage, and make sure that all of them are correctly engaged; otherwise the Cutter may not work correctly.



Cutter Guide

Removal

1. Switch off the printer and remove the power cable.
2. Remove the Front Cover, see Front Cover on page 150.
3. Remove the Ink Cartridge Cover, see Ink Cartridge Cover on page 156.
4. Remove the Left Cover, see Left Cover on page 158.
5. Remove the Right Cover, see Right Cover on page 153.
6. Remove the Front Panel, see Front Panel on page 165.
7. Remove the Central Cover, see Central Cover on page 172.
8. Remove the Output Tray, see Output Tray on page 257.
9. Remove the Cutter Assembly, see Cutter Assembly on page 272.
10. Remove twelve T-10 screws for the 36 inch printer (nine screws for the 24 inch printer).



11. Rotate the Cutter Guide approximately 160°.



http://www.justmanuals.com

12. Slide the Cutter Guide to the right and remove it.



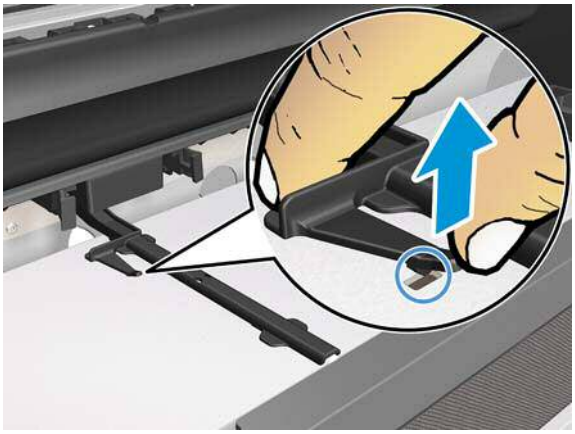
Out-Of-Paper Sensor

Removal

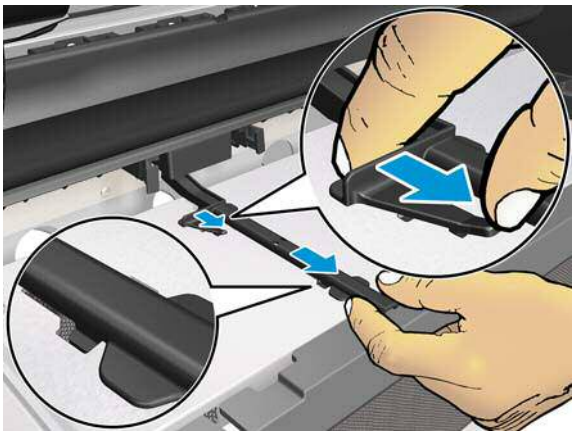
1. Switch off the printer and remove the power cable.
2. Remove the Multi-Sheet Tray, see Multi-Sheet Tray Assembly on page 260.
3. Locate the Out-Of-Paper Sensor.



4. Unclip the Out-Of-Paper Sensor FFC Cover.

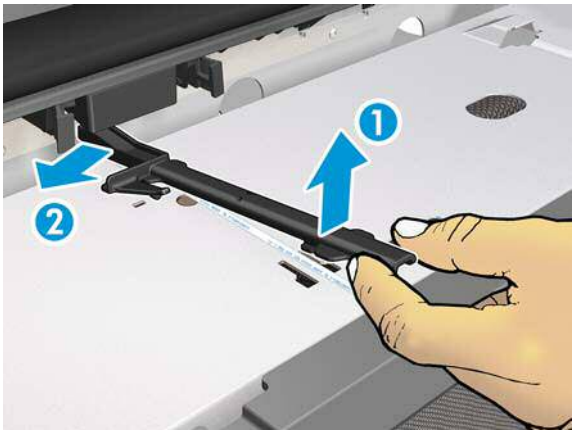


5. Slide the Out-Of-Paper Sensor FFC Cover.

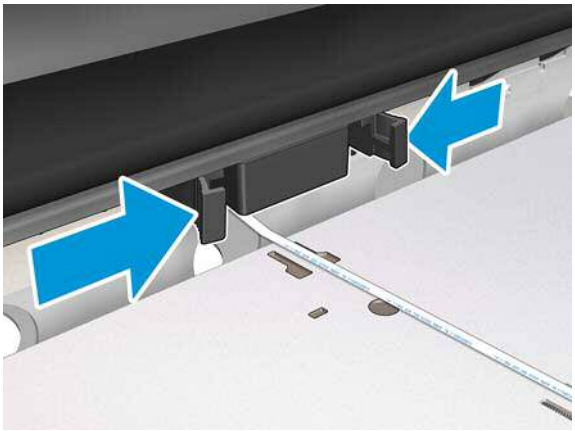


http://www.justmanuals.com

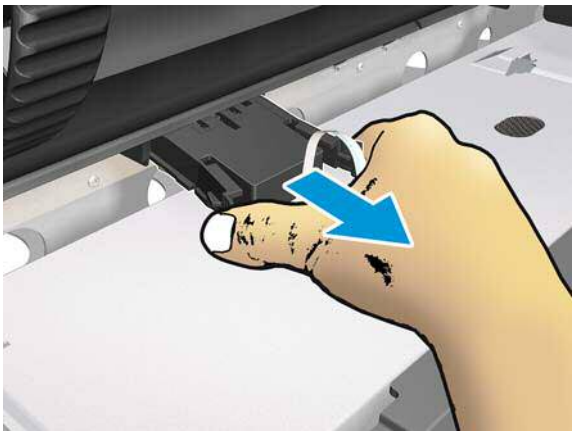
6. Lift up (1) the Out-Of-Paper Sensor FFC Cover and slide it to the left (2).



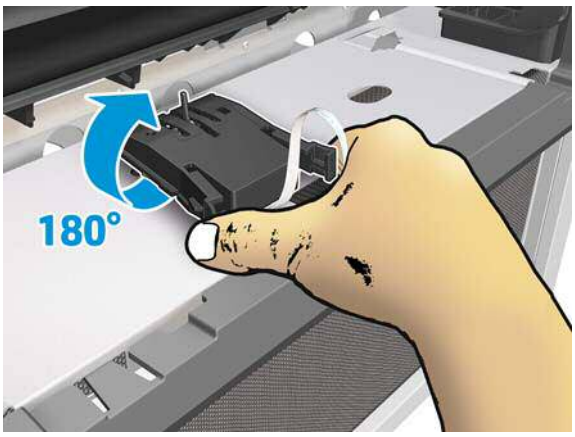
7. Press the retaining clips of the Out-Of-Paper Sensor Assembly.



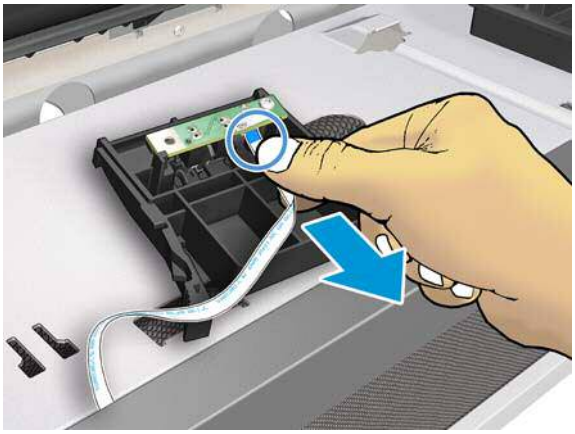
8. Slide out the Out-Of-Paper Sensor Assembly.



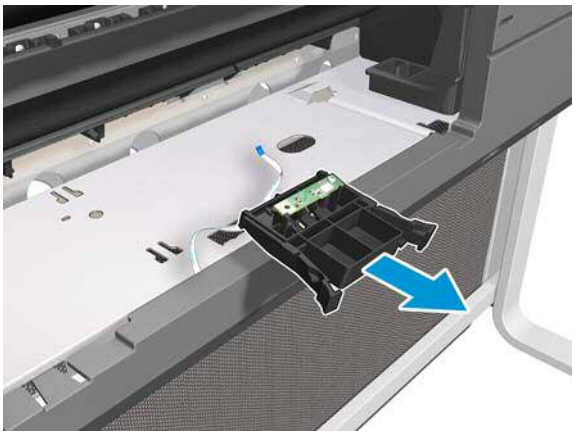
9. Turn over the Out-Of-Paper Sensor Assembly to get better access to the connector.



10. Disconnect the Out-Of-Paper Sensor cable.



11. Remove the Out-Of-Paper Sensor Assembly.

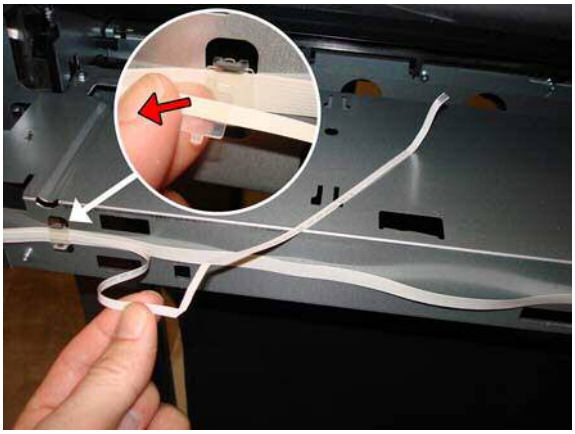


http://www.justmanuals.com

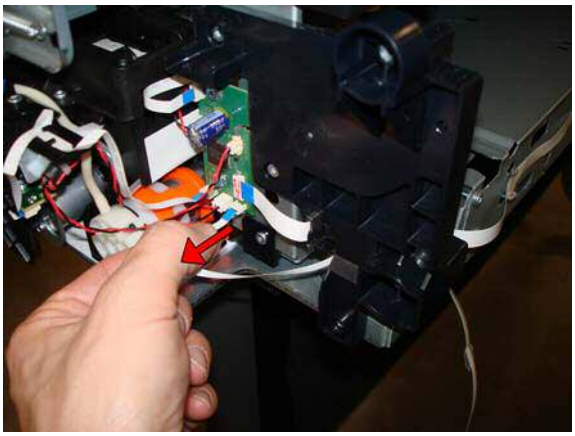
Out-Of-Paper Sensor Cable

Removal

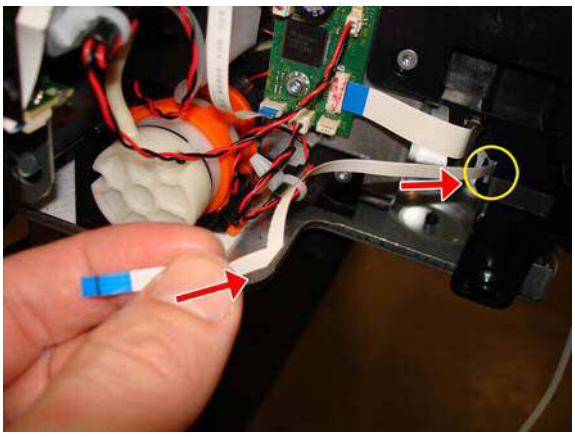
1. Remove the Front Cover, see Front Cover on page 150.
2. Remove the Ink Cartridge Cover, see Ink Cartridge Cover on page 156.
3. Remove the Left Cover, see Left Cover on page 158.
4. Remove the Right Cover, see Right Cover on page 153.
5. Remove the Back Cover, see Back Cover on page 163.
6. Remove the Out-Of-Paper Sensor, see Out-Of-Paper Sensor on page 281.
7. Unclip the locator FFC.



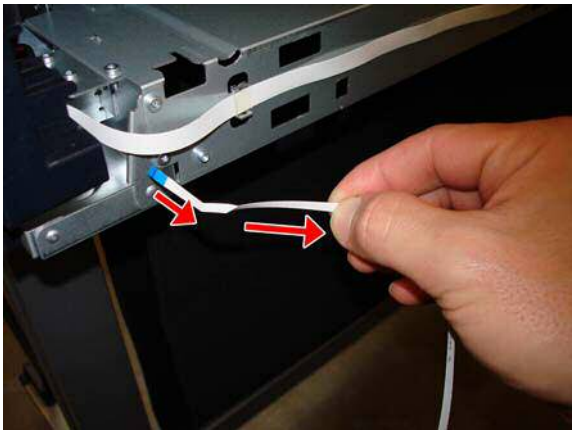
8. Disconnect the Out-Of-Paper Sensor Cable from the Bundle Board.



9. Unroute the Out-Of-Paper Sensor Cable through the hook.

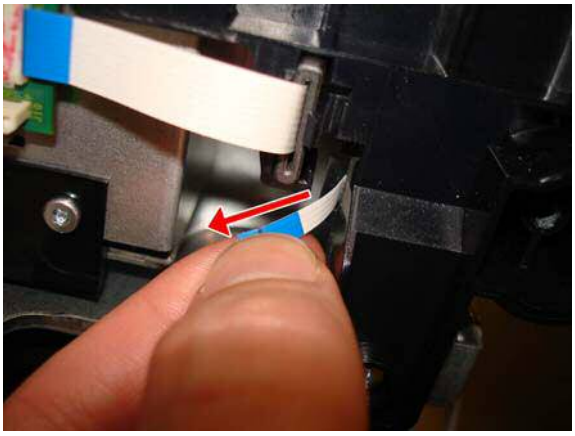


10. Remove the Out-Of-Paper Sensor Cable.



Installation

▲ When you pass the Out-Of-Paper Sensor Cable through the hook, make sure that the blue end of the cable is facing you.



http://www.justmanuals.com

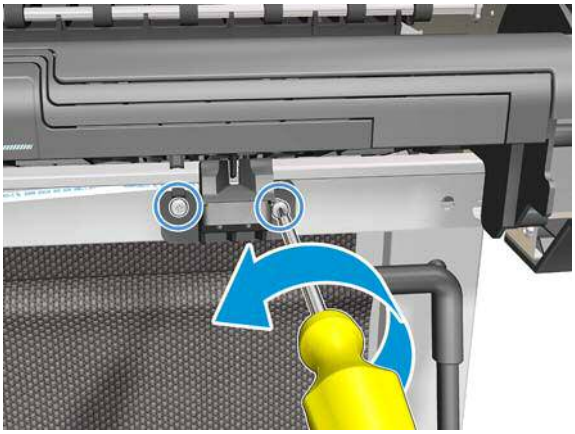
Output Tray Sensor Assembly

Removal

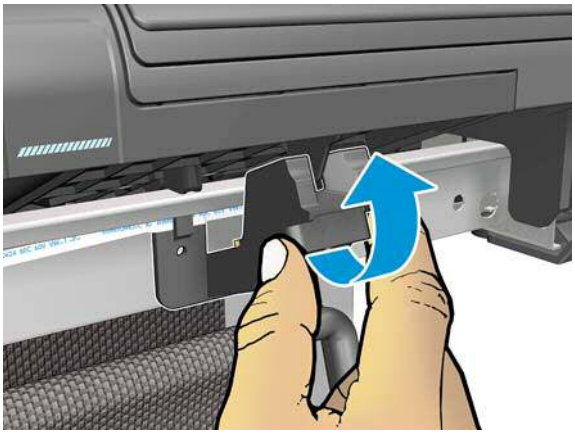
1. Remove the Front Cover, see Front Cover on page 150.
2. Locate the Output Tray Sensor Assembly.



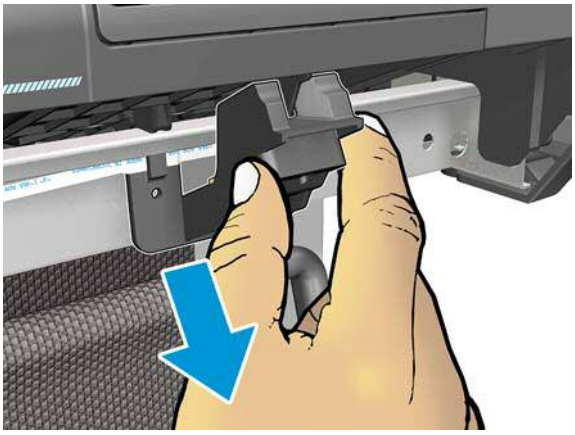
3. Remove two T-10 screws.



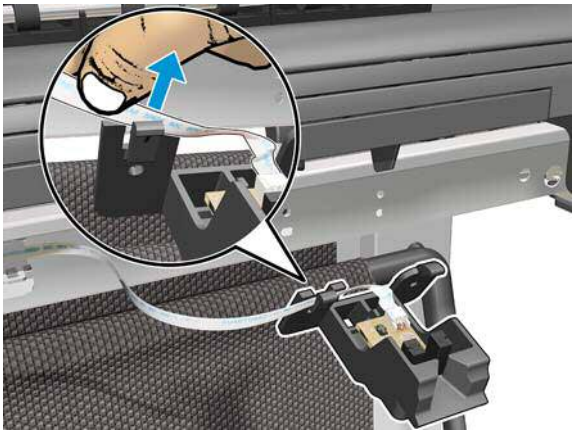
4. Detach the Output Tray Sensor from the two locator pins.



5. Remove the Output Tray Sensor Assembly in the direction shown below.



6. Remove the Output Tray Sensor Cable from the retainer clip in the assembly.



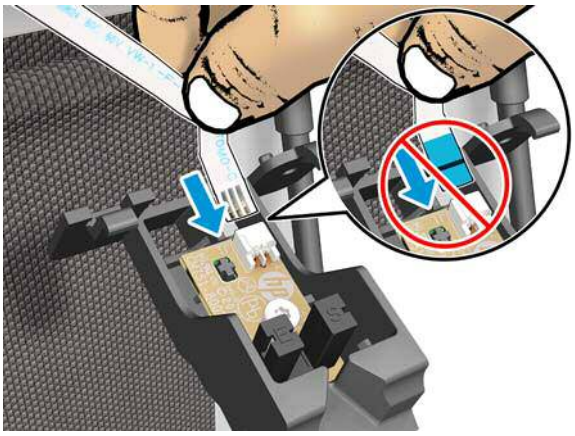
7. Disconnect the flat cable (Output Tray FFC).



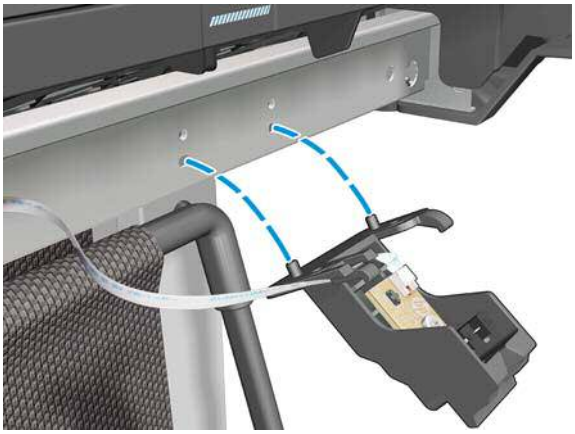
http://www.justmanuals.com

Installation

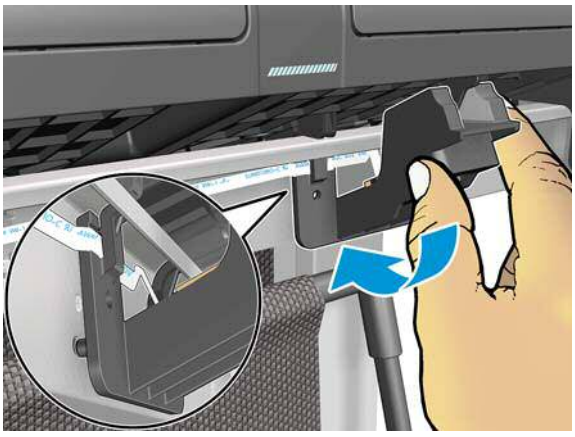
1. When installing the Output Tray Sensor Cable, ensure the orientation of the cable is correct as you install it.



2. Attach the two pins of the Output Tray Sensor to the front of the printer.



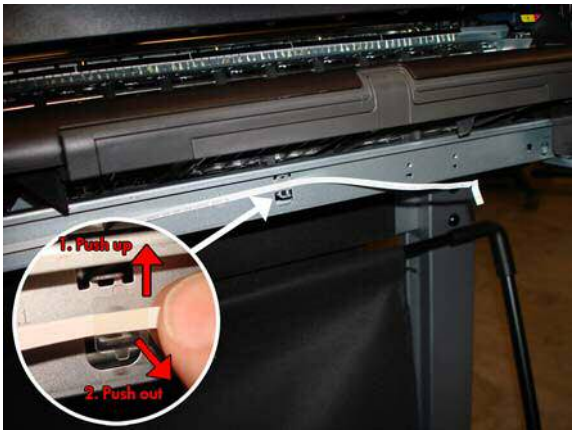
3. Make sure the Output Tray Sensor is mounted correctly.



Output Tray Extender Sensor Cable

Removal

1. Remove the Front Cover, see Front Cover on page 150.
2. Remove the Ink Cartridge Cover, see Ink Cartridge Cover on page 156.
3. Remove the Left Cover, see Left Cover on page 158.
4. Remove the Output Tray Sensor, see Output Tray Sensor Assembly on page 286.
5. Unclip the locator FFC from the right of the Front Cross Beam.

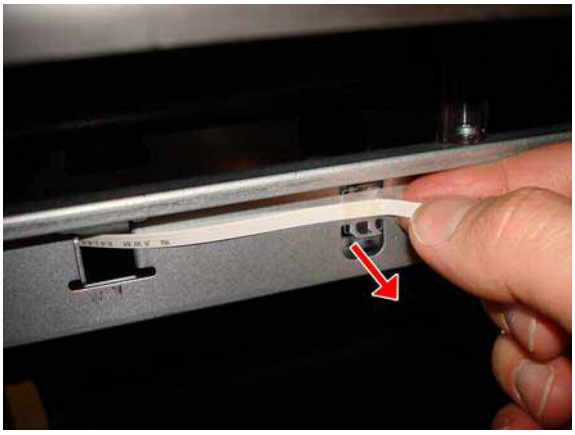


6. Unclip the locator FFC from the middle of the Front Cross Beam.

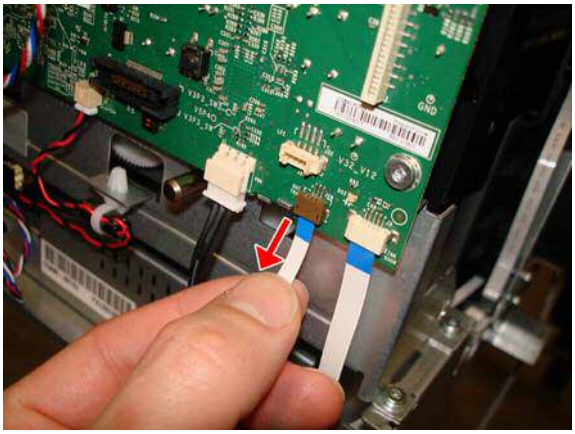


http://www.justmanuals.com

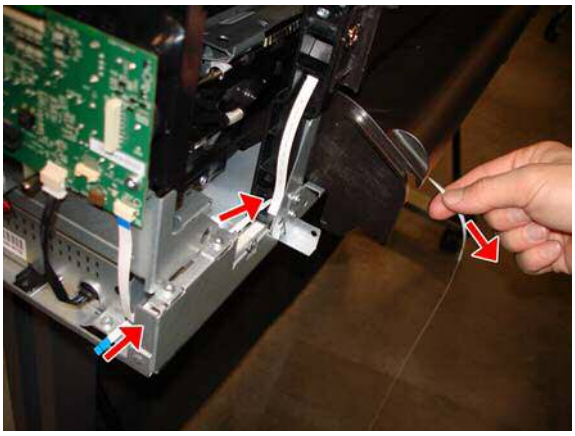
7. Unclip the locator FFC from the left of the Front Cross Beam.



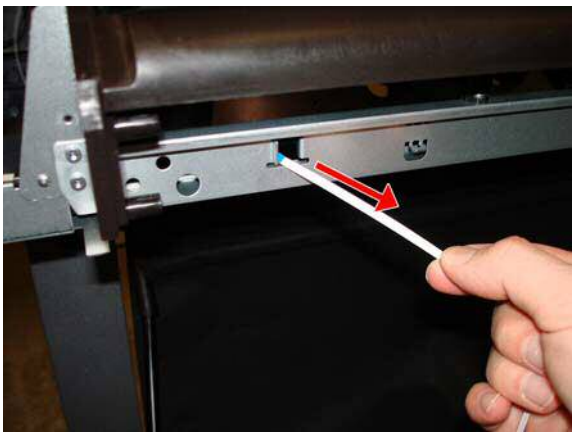
8. Disconnect the Output Tray Extender Sensor Cable from the Main PCA.



9. Unroute the flat cable carefully.



10. Remove the Output Tray Extender Sensor Cable.

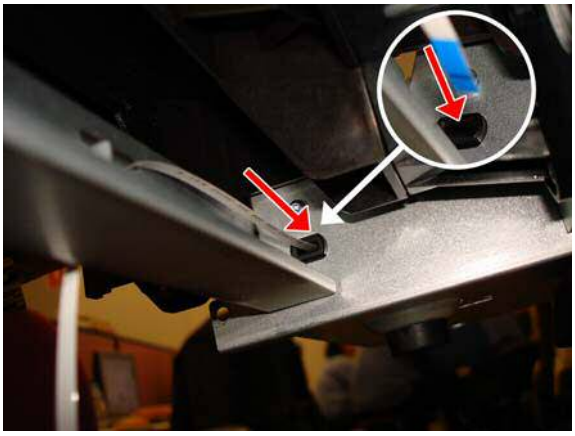


Installation

1. Pass the Output Tray Extender Sensor Cable through the hole of the Front Cross Beam.

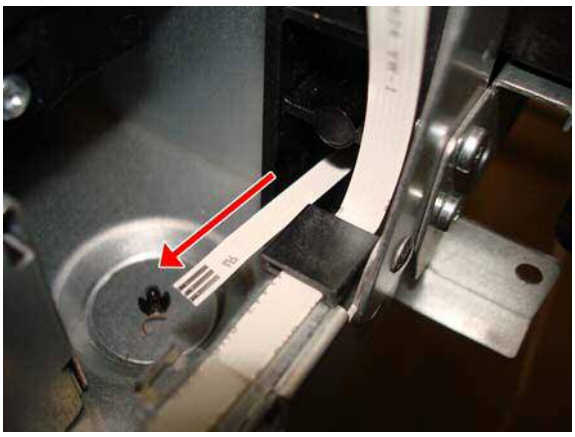


2. Pass the Output Tray Extender Sensor Cable through the hole of the left arch. **Important**: The blue color should be facing you.



http://www.justmanuals.com

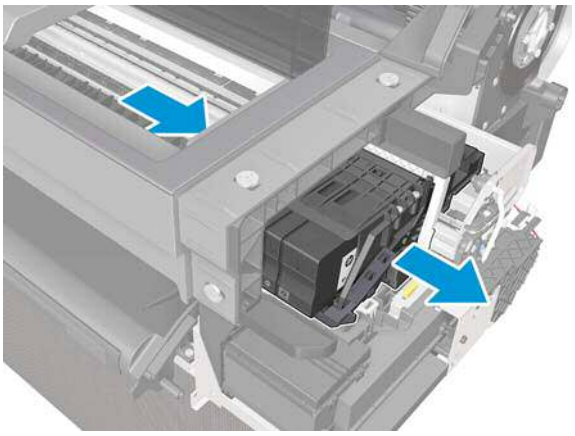
3. Slide the Output Tray Extender Sensor Cable through the hole of the left arch.



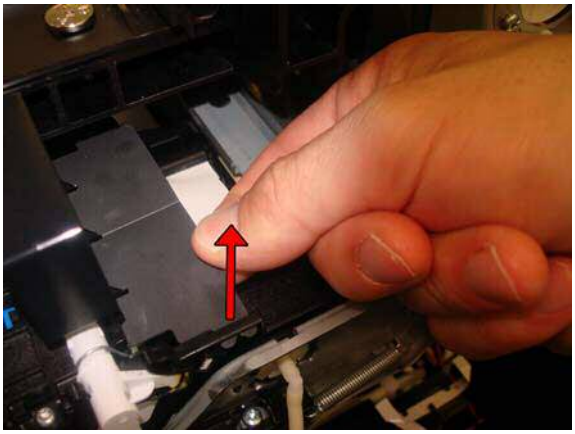
Carriage Line Sensor

Removal

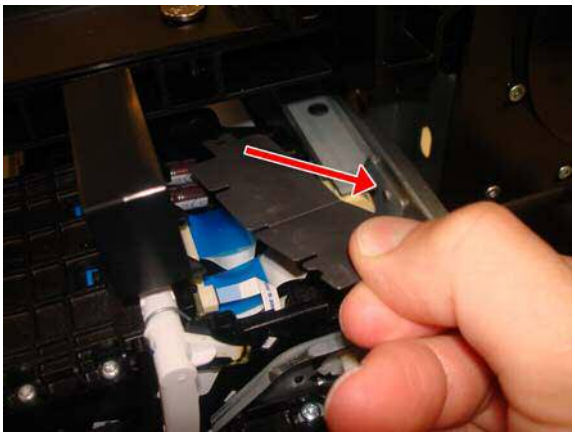
1. Switch off the printer and remove the power cable.
2. Remove the Front Cover, see Front Cover on page 150.
3. Remove the Right Cover, see Right Cover on page 153.
4. Make sure the Service Station is located in the right position.



5. Detach the right side of the Cover PCA Carriage.

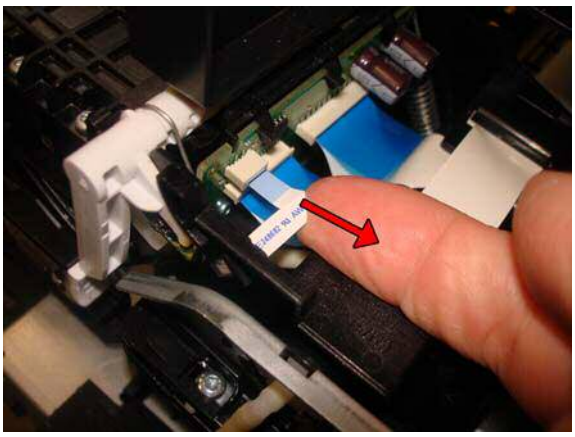


6. Remove the Cover PCA Carriage.

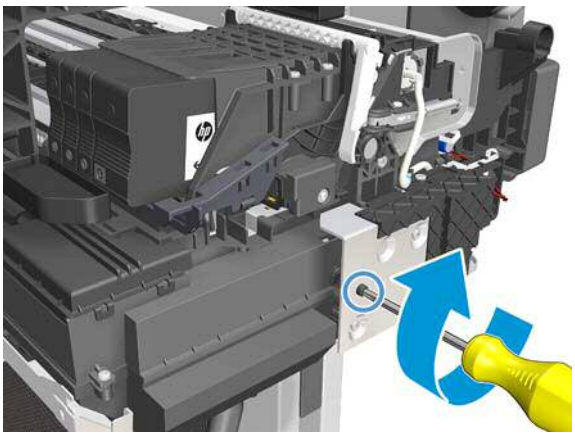


http://www.justmanuals.com

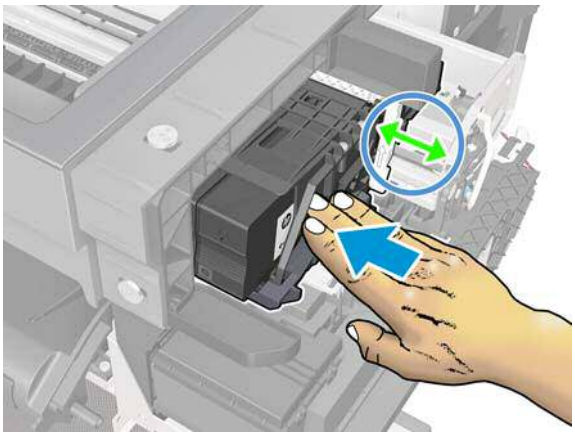
7. Disconnect the flat cable.



8. **Important:** If the Carriage is in the capped position, move the Service Station gear clockwise to uncap it.

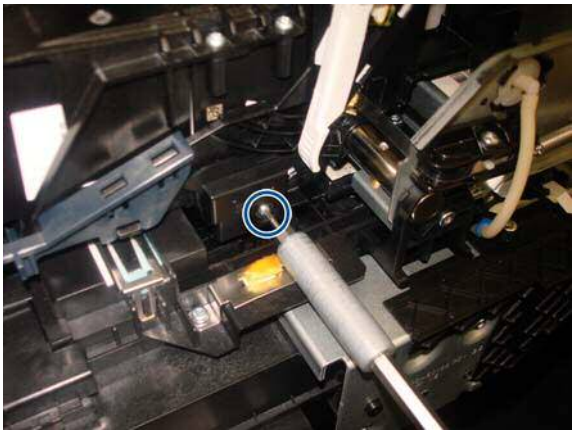


9. Move the Carriage slightly to allow access to the Carriage Line Sensor, maintain a separation of 4 cm.

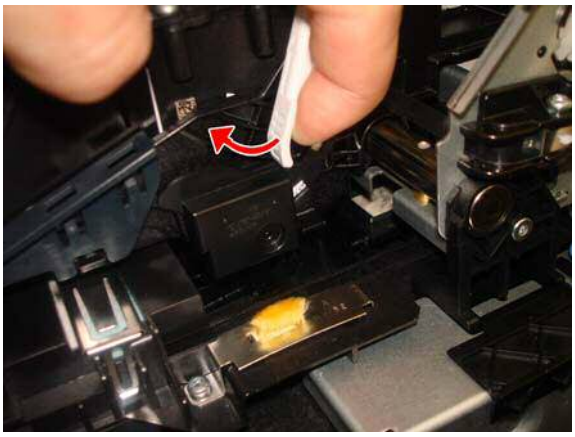


10. Remove one T-6 screw.

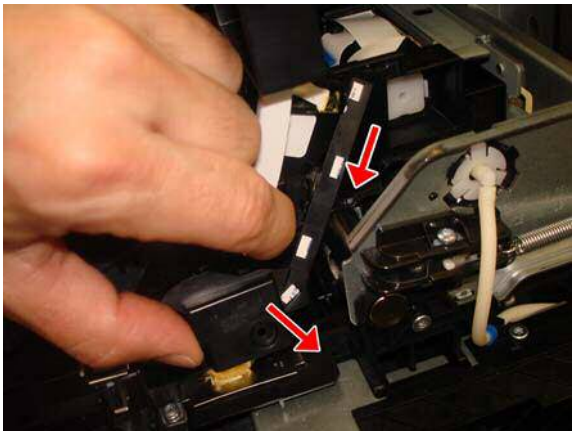
CAUTION: Make sure that the screw does not fall down into the Service Station.



11. Open the Carriage latch upwards to allow access to the Carriage Line Sensor.

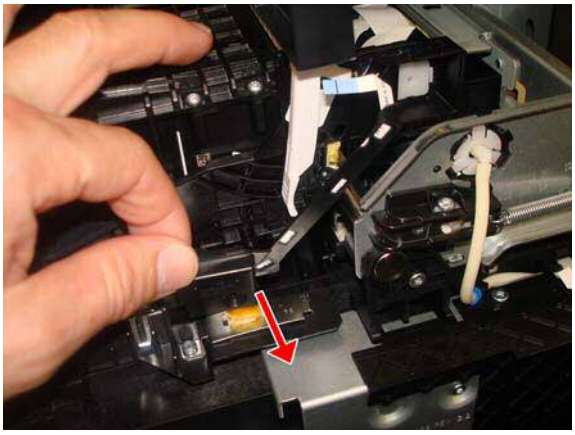


12. Detach the Line Sensor from the Carriage.



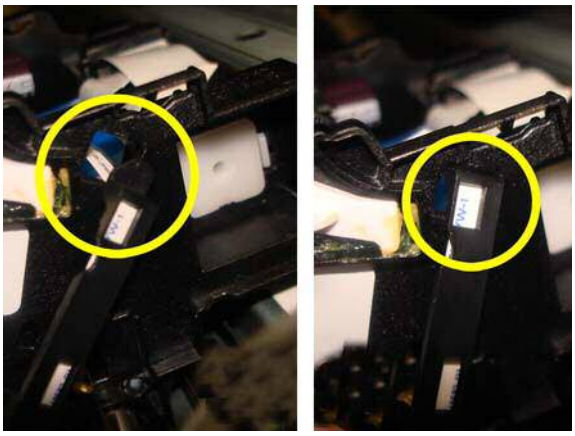
http://www.justmanuals.com

13. Remove the Carriage Line Sensor.



Installation

1. Make sure to introduce the end of the Carriage Line Sensor into the hole in the Carriage.

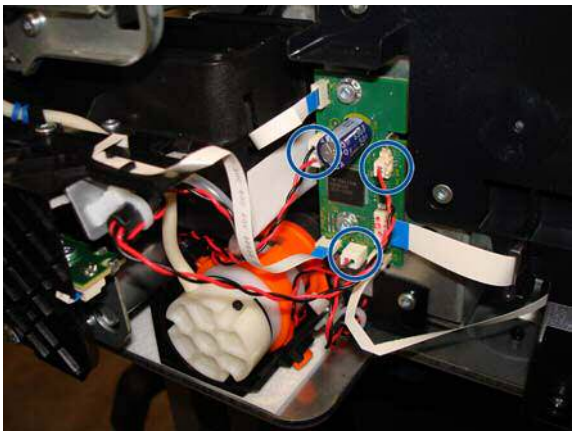


2. Before putting the covers back on, clean the Carriage Line Sensor. See Clean the Carriage Line Sensor on page 314.

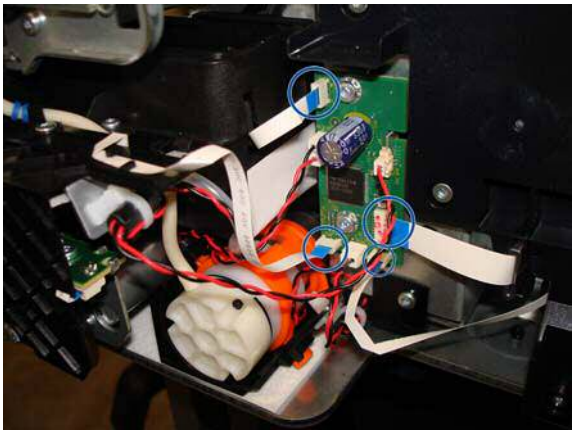
Bundle Board

Removal

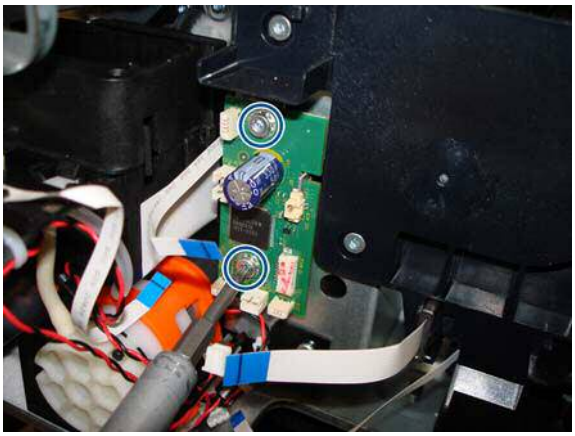
1. Switch off the printer and remove the power cable.
2. Remove the Front cover, see Front Cover on page 150.
3. Remove the Right Cover, see Right Cover on page 153.
4. Disconnect three motor cables.



5. Disconnect four FFC (flat flexible cables) from the Bundle Board.

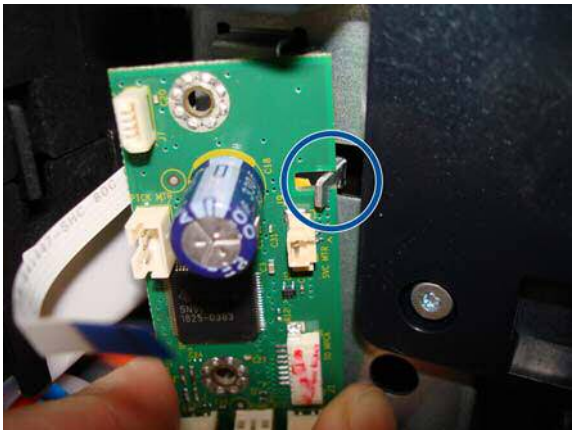


6. Remove two T-10 screws.

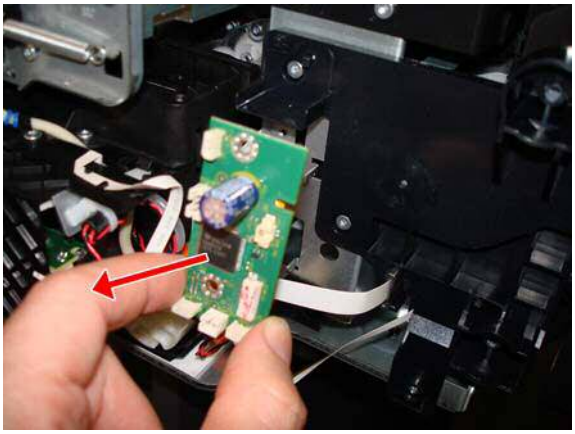


http://www.justmanuals.com

7. Detach the Bundle Board from the hook.



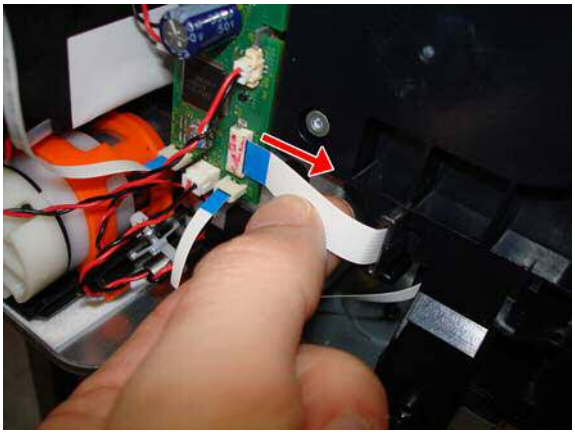
8. Remove the Bundle Board.



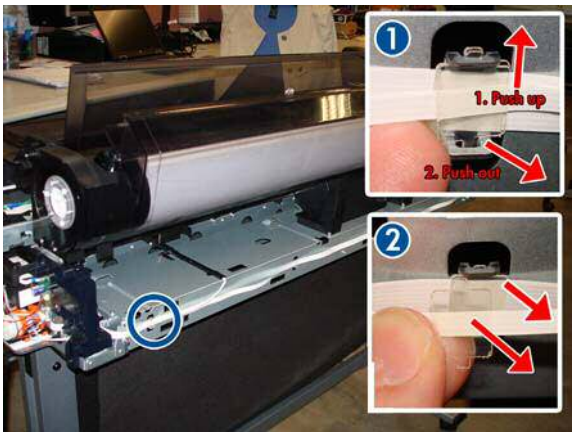
Bundle Board FFC cable

Removal

1. Switch off the printer and remove the power cable.
2. Remove the Front Cover, see Front Cover on page 150.
3. Remove the Ink Cartridge Cover, see Ink Cartridge Cover on page 156.
4. Remove the Left Cover, see Left Cover on page 158.
5. Remove the Right Cover, see Right Cover on page 153.
6. Remove the Back Cover, see Back Cover on page 163.
7. Disconnect the FFC cable from the Bundle Board.

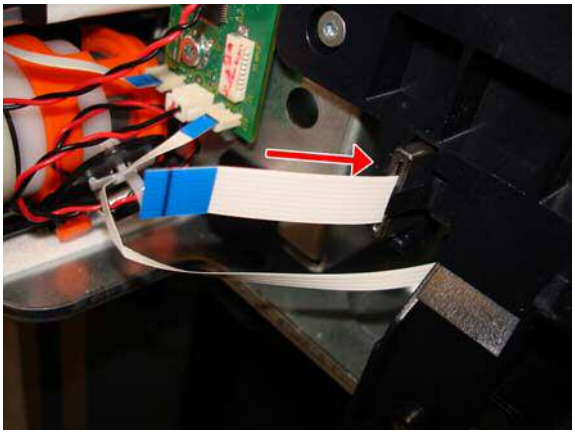


8. Unclip the two locators FFC, by first pushing up and pushing out.



http://www.justmanuals.com

9. Unroute the Bundle Board Cable FFC.

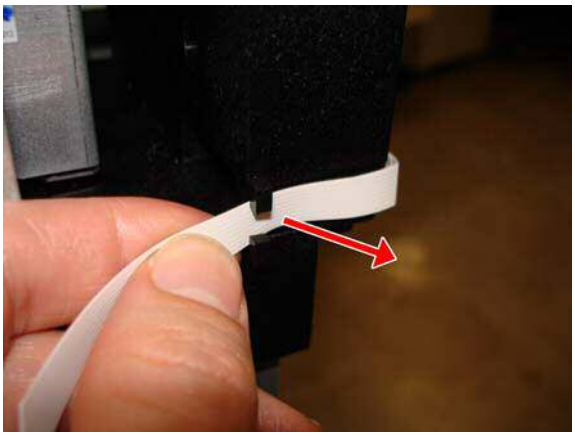


10. Unclip the locators FFC.

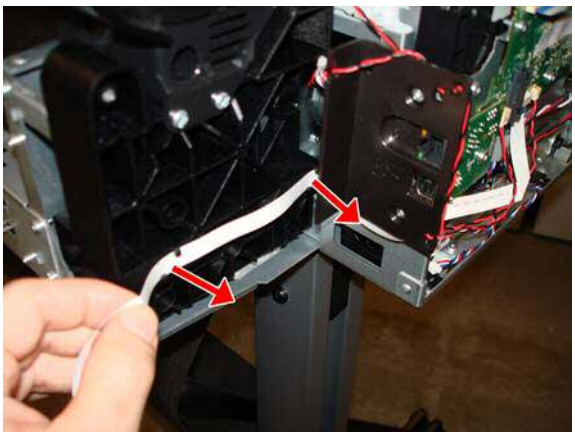
- 3 clips in the 24 inch printer
- 4 clips in the 36 inch printer



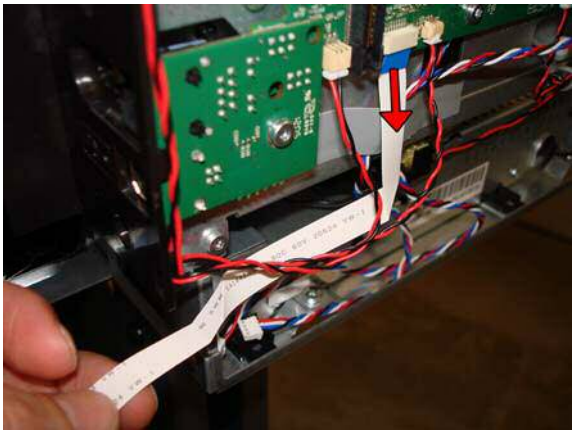
11. Carefully remove the FFC from the hook of the left arch.



12. Carefully remove the FFC from the 2 hooks of the left arch.



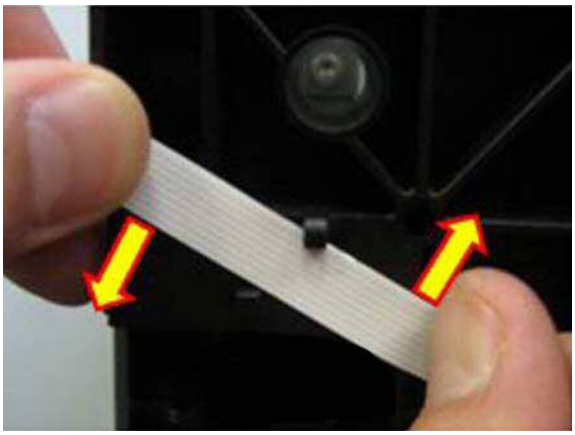
13. Disconnect the Bundle Board cable FFC from the Main PCA and remove it.



Installation

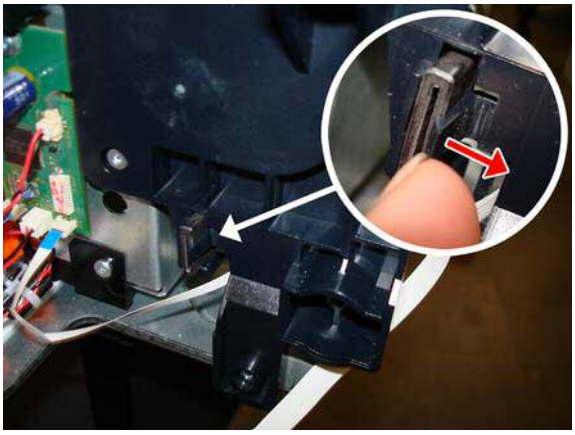
1. When re-installing the Bundle FFC into the hooks of the left arch, orient the FFC inclined as shown below. Make sure to assemble the Bundle Ferrite in the same position close to the Bundle Board.

NOTE: When re-installing the Bundle FFC, hook each clamp first on the upper clip and then push on the bottom area.

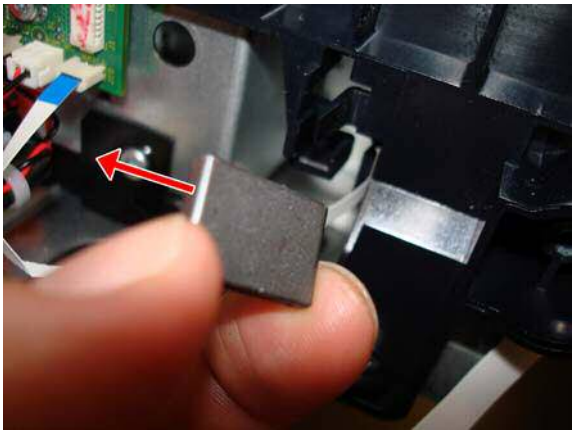


http://www.justmanuals.com

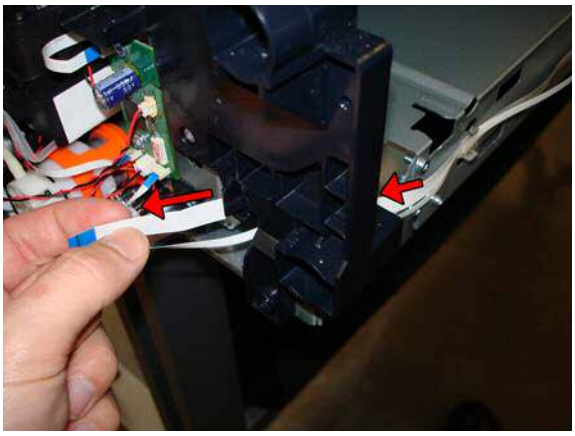
2. Unclip to remove the ferrite of the right arch.



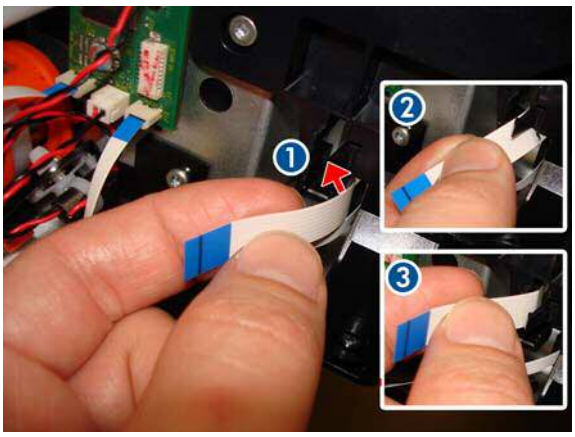
3. Remove the ferrite.



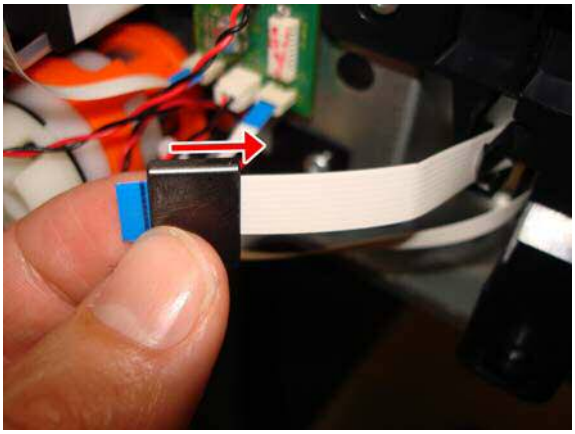
4. Route the Bundle FFC.



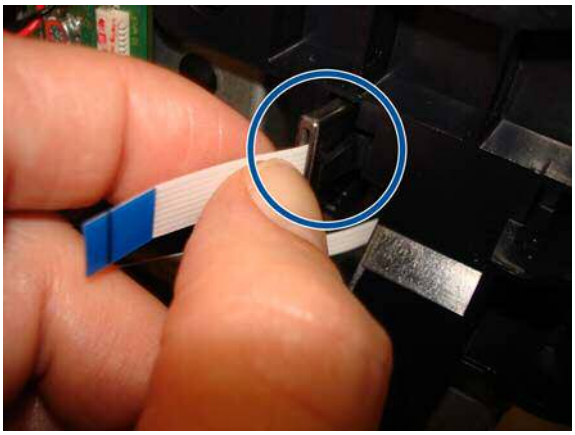
5. Re-install the Bundle FFC **in exactly the same place where the ferrite was**.



6. Pass the ferrite through the FFC.



7. Attach the ferrite to the right arch.

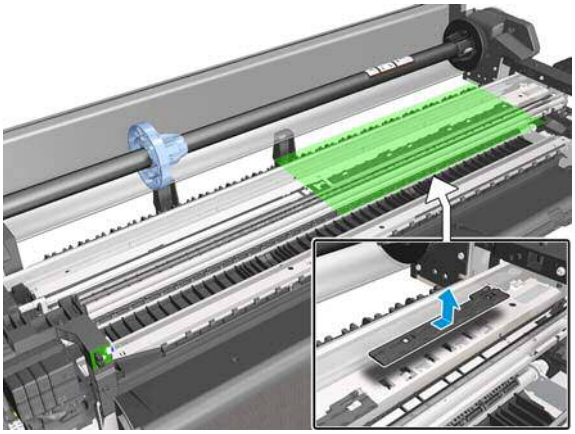


http://www.justmanuals.com

Pinchwheels

Removal

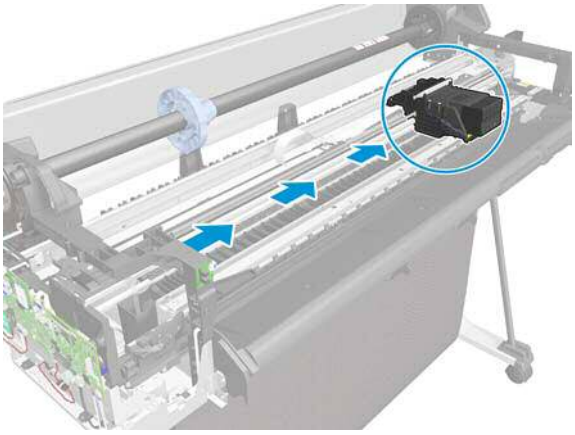
1. Switch off the printer and remove the power cable.
2. Remove the Front Cover, see Front Cover on page 150.
3. Remove the Ink Cartridge Cover, see Ink Cartridge Cover on page 156.
4. Remove the Left Cover, see Left Cover on page 158.
5. Remove the Right Cover, see Right Cover on page 153.
6. Remove the Front Panel, see Front Panel on page 165.
7. Remove the Central Cover, see Central Cover on page 172.
8. Remove the Back Cover, see Back Cover on page 163.
9. Remove the Upper-Roll Paper Guide, see Upper-Roll Paper Guide on page 177.
10. If the damaged Pinchwheels are in the zone indicated in green below, remove the Aerosol Shields and go to step 17.



If the damaged Pinchwheels are in the zone indicated in green below, continue with the next steps.



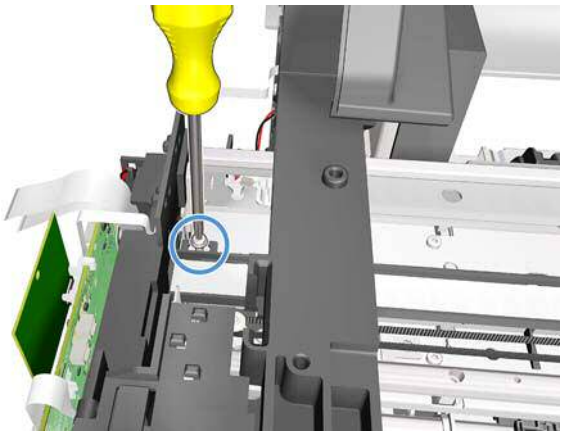
11. Uncap the Carriage, move it to the right, and leave it in the position indicated below.



12. Disconnect the two flat trailing cables from the Main PCA.

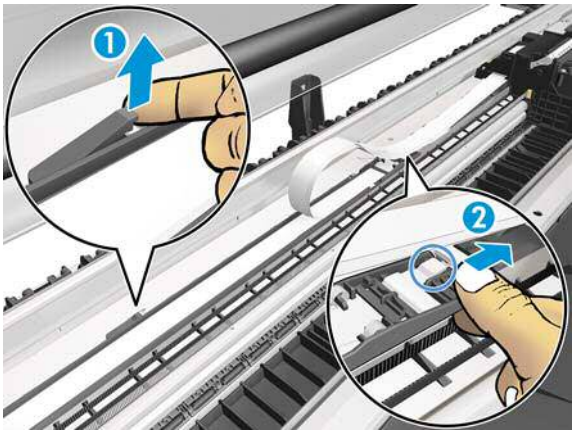


13. Remove one T-10 screw.

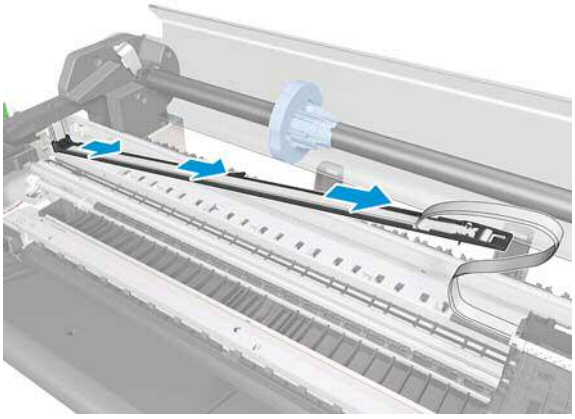


http://www.justmanuals.com

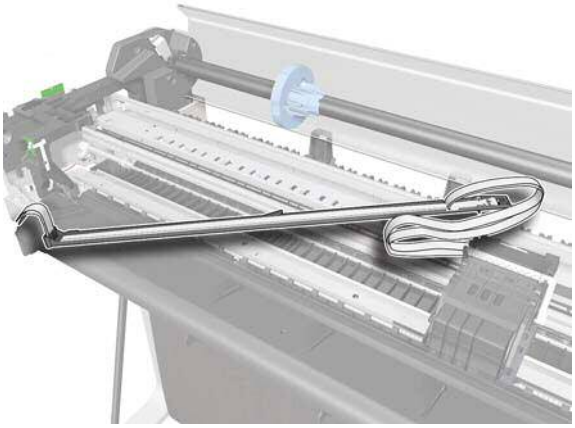
14. Detach the flex retainer assembly from the backbone.



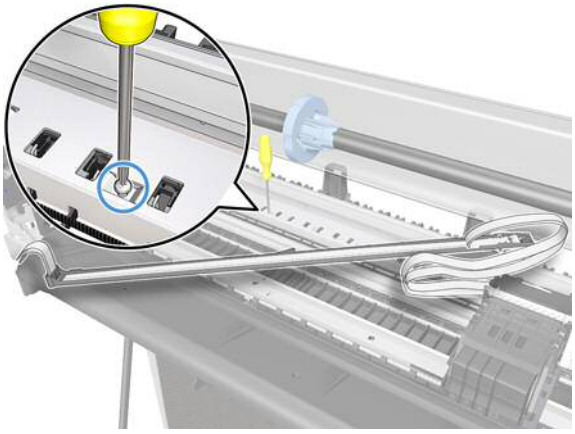
15. Slide the flex retainer with the trailing cable to the right. Be careful not to damage the trailing cable.



16. Leave the flex retainer with the trailing cable in the position shown below.



17. Loosen the screws that secure the Pinchwheels.



18. Locate the tool needed to detach the springs.



19. Detach the left end of the Pinchwheels.



http://www.justmanuals.com

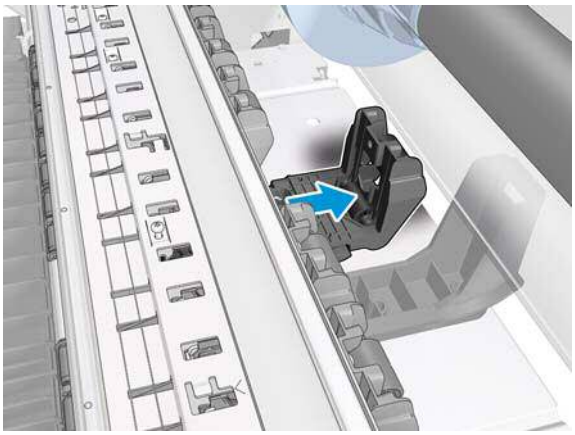
20. Detach the right end of the Pinchwheels.



21. Remove one T-10 screw.

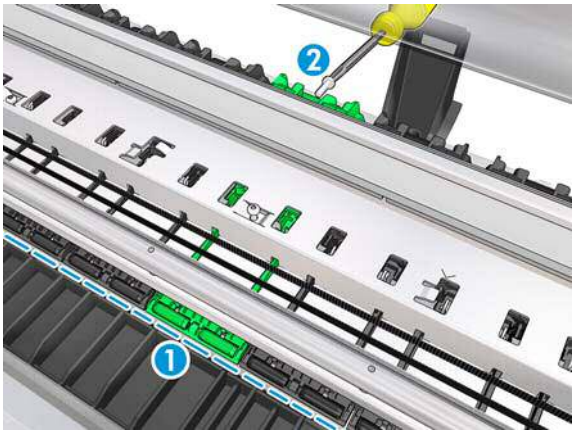


22. Remove the Pinchwheels.



Installation

1. Make sure that the new Pinchwheels are properly aligned (1). Then tighten the screw (2).



2. Attach the spring to the hook by pushing with the tool provided.

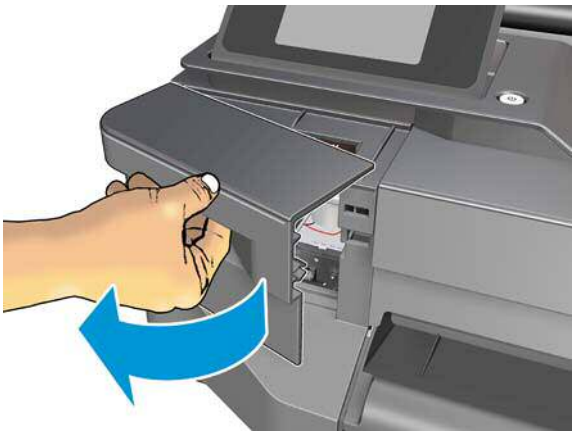


http://www.justmanuals.com

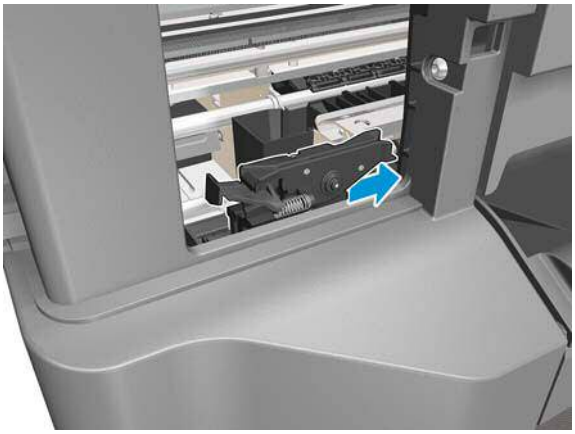
Left Spittoon

Removal

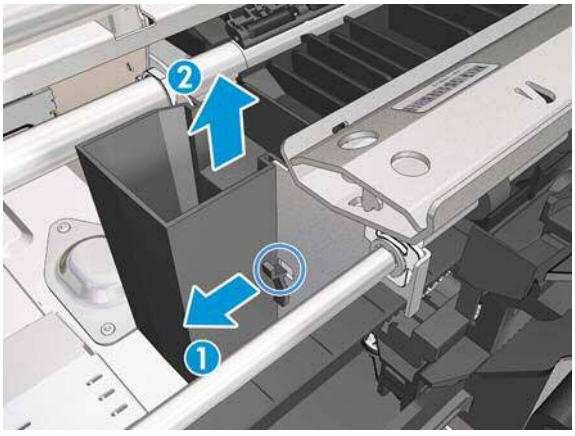
1. Switch off the printer and remove the power cable.
2. Open the Ink Cartridge Cover.



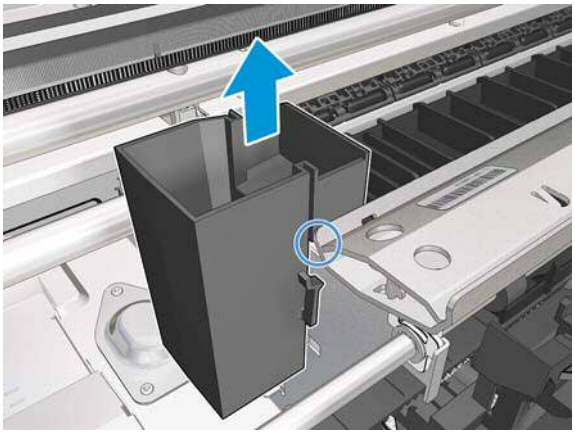
3. Slide the Cutter to the right.



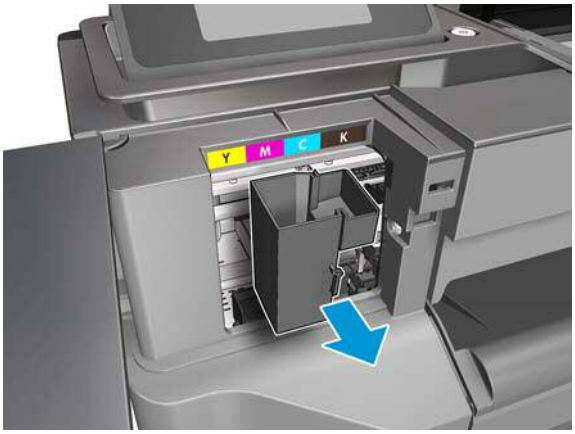
4. Unclip the flange of the Left Spittoon (1). Maintain it in the unclipped position and slide it up (2).



5. Slide up the Left Spittoon until it is detached from the bracket.



6. Remove the Left Spittoon in the vertical position. You are recommended to wear gloves.



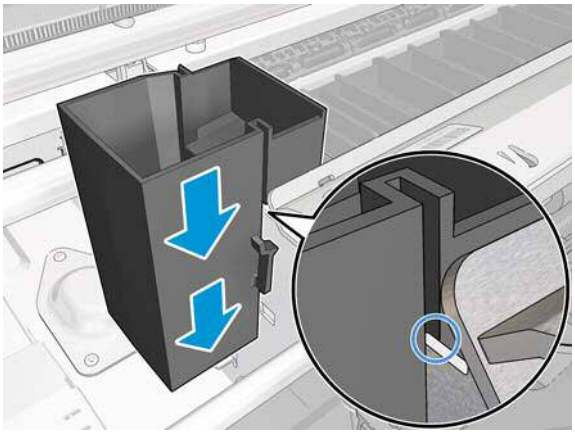
7. Never incline the Left Spittoon, because the ink can fall out.



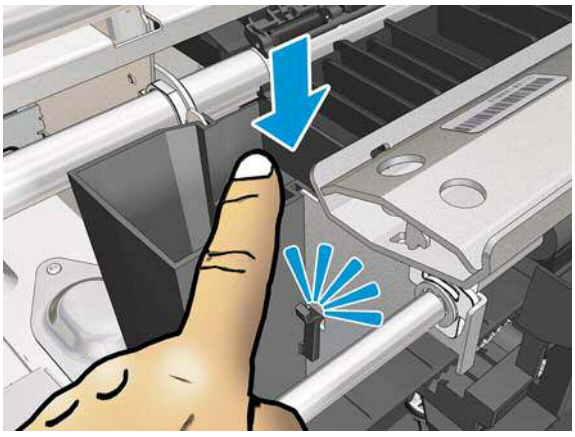
http://www.justmanuals.com

Installation

1. When sliding the Left Spittoon down, make sure to slide it by the path of the bracket.



2. Press down the Left Spittoon until you hear a click; make sure the flange is clipped.



6 Preventive maintenance

- Preventive maintenance
- Preventive maintenance kits

http://www.justmanuals.com

Preventive maintenance

Clean the printer

To maintain the printer in good operating condition, keep it free of accumulated dust, ink, and other contamination. Cleaning intervals are determined by the printer environment and by the types of printer supplies used.

General cleaning

Proper general cleaning should include the following:

NOTE: To prevent an electric shock, make sure that the printer is switched off and unplugged before any cleaning is performed. Do **not** let any water get inside the printer.

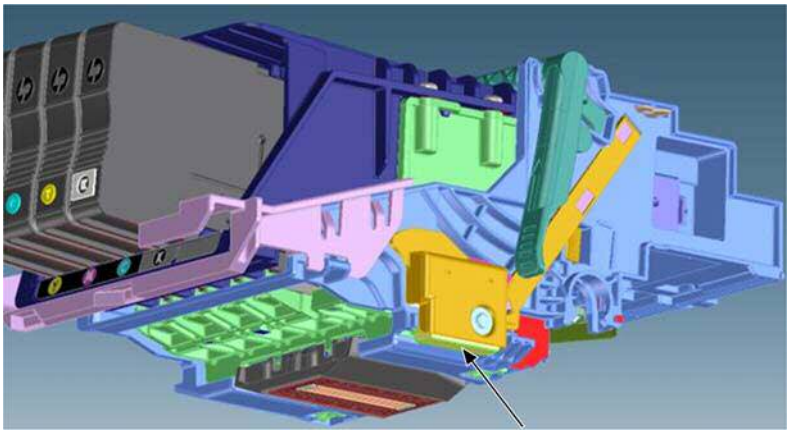
1. Blow away dust accumulation with compressed air if available.
2. Clean the outer surface of the printer with a damp sponge or cloth. Use a mild soap and water solution if necessary. Do not use abrasive cleaners.
3. Wipe the printer dry with a soft lint-free cloth.

Clean the Carriage Line Sensor

The Carriage Line Sensor should not normally require cleaning during the life of the printer. However, it may require cleaning after a bad printhead crash while printing with high ink density. In practice, it is recommended to clean the sensor if there are intermittent failures of paper edge detection, printhead alignment, or paper advance calibration.

The cleaning actually involves cleaning the clear plastic lens cover, not the sensor itself.

1. Use tap water. Do not use chemicals that could damage the clear plastic of the lens cover.
2. Use a lint-free cloth.
3. Wipe the lens with the damp cloth, then remove excess water or moisture with a dry area of the same cloth.



Clean the Encoder Strip

The Encoder Strip should not normally require cleaning during the life of the printer. However, it may require cleaning in the following cases:

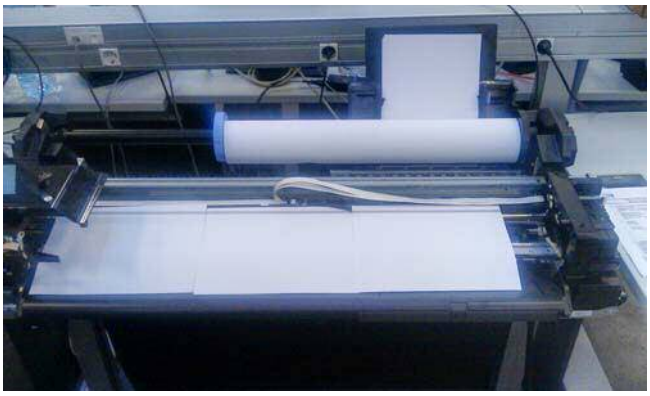
- When droplets of ink get into the encoder. This may happen under certain environmental conditions, with very heavy use of the printer, high ink concentrations, and system errors affecting the scan axis.
- When there is grease on the Encoder Strip. This may happen if the Encoder Strip is allowed to touch the Carriage rail during repair operations or while clearing a paper jam.

Cleaning procedure

1. Switch off the printer and remove the power cable.
2. Move the Carriage Assembly to the capping position and uncap the printhead.



3. Place some paper over the slider rod in order to protect the lubricant and avoid cross-contamination with grease and alcohol.



4. Dampen a cloth with alcohol.



http://www.justmanuals.com

5. Clean the encoder strip carefully, not moving the papers underneath and not stretching the strip.



6. Move the Carriage towards the center of the printer and clean the remaining portion of the strip.



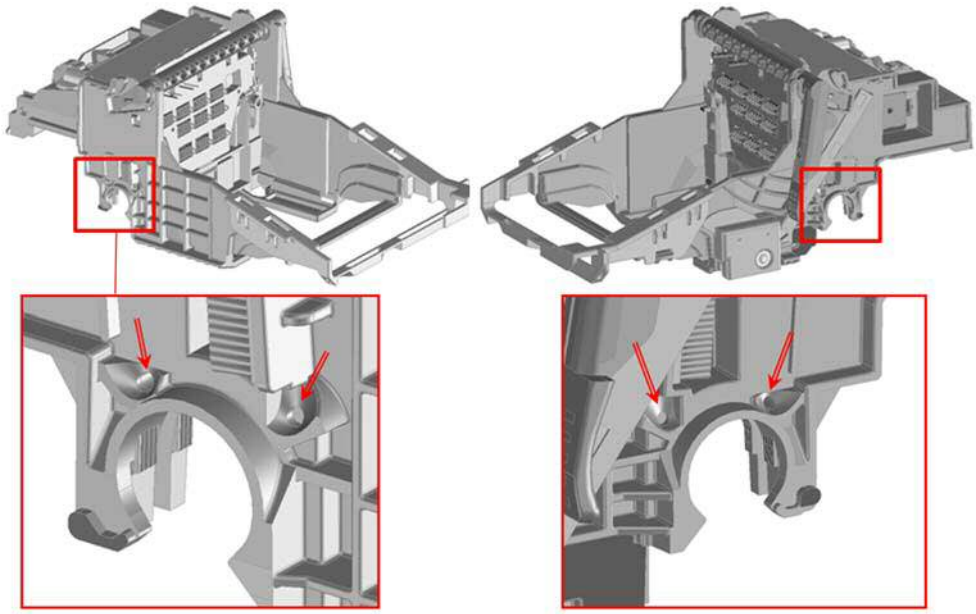
7. Return the Carriage to the capping position and cap it manually.
8. Remove the papers carefully in order not to remove grease from the slider rod.



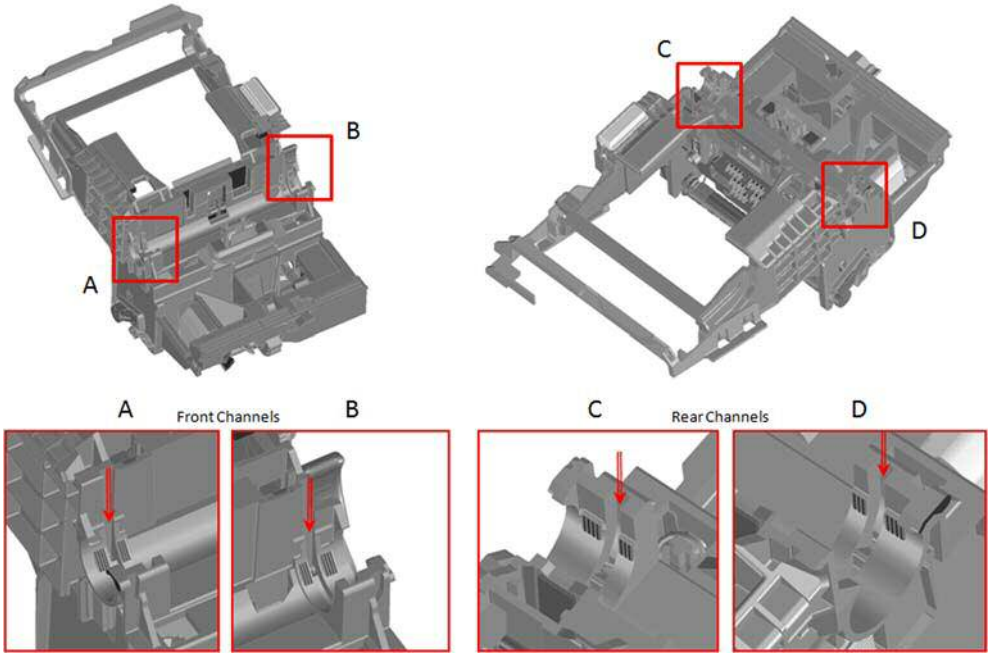
Lubricate the Carriage Assembly

The Carriage should not normally require lubrication during the life of the printer. However, lubrication is recommended if there are intermittent Carriage jams.

1. Lubricate the four areas indicated here.

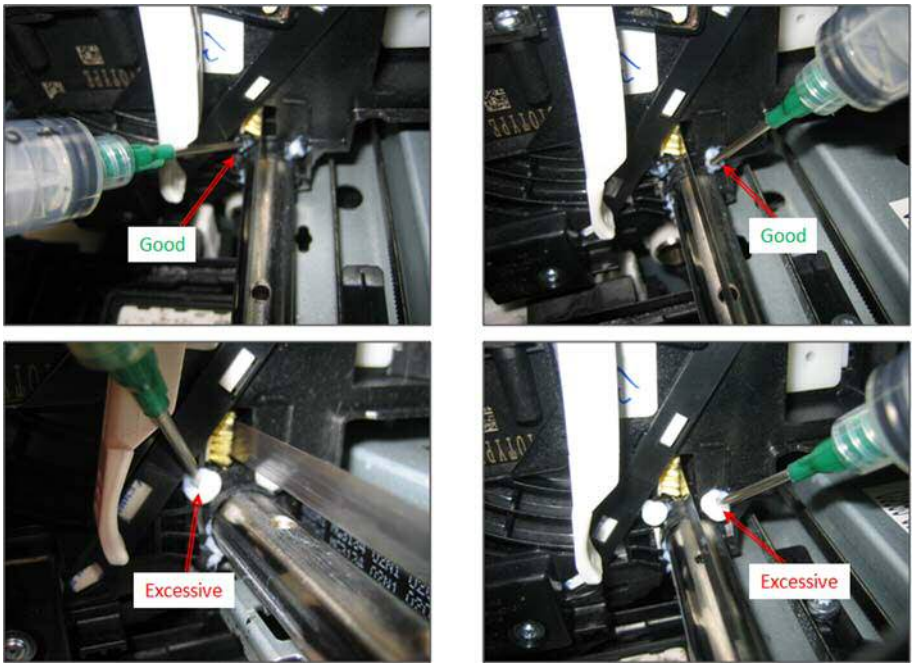


2. Lubricate the areas indicated here, A-D.



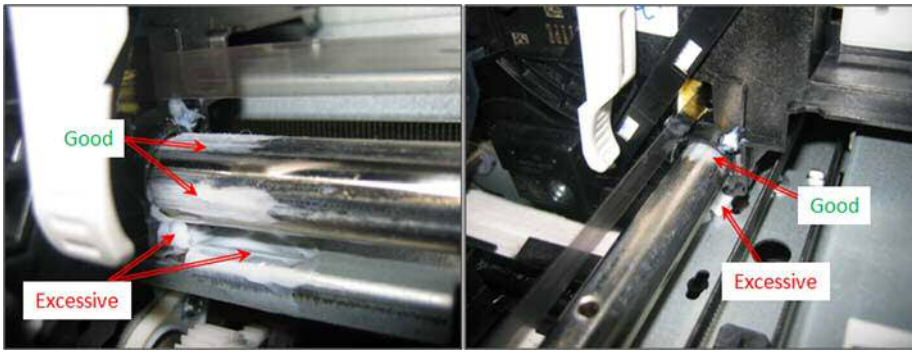
http://www.justmanuals.com

3. Use a syringe to inject grease into the ports. Push the needle against the ports firmly to direct grease into the channels.



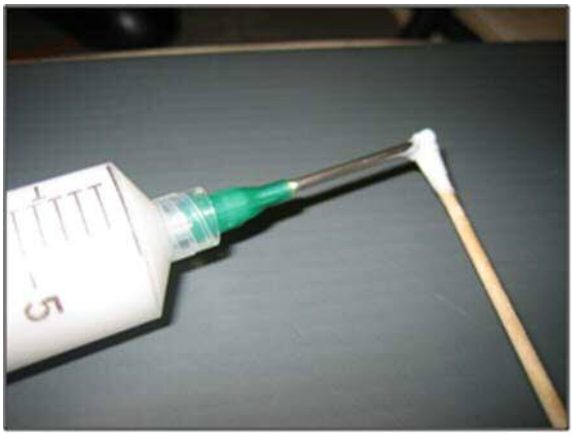
NOTE: The Encoder Strip must stay free of grease. Wipe off with a dry lint-free cloth if necessary.

4. Move the Carriage 10–20 mm to check the grease on the rod.

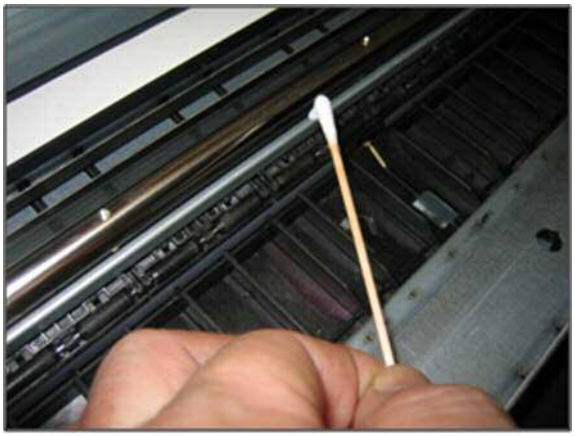


Lubricate the Carriage Rod

1. Apply a large drop of grease to a cotton swab.



2. Apply grease to the front of the rod and smear for a distance of about 50 mm.



3. Apply grease to the rear of the rod and smear for a distance of about 50 mm.



Moisture on the printer

Customers should use the printer in an environment between 20% and 80% relative humidity. To recover from moisture condensation, turn the printer off, and wait until the printer is completely dry before using it again.

Level of printer usage

Normal printer use means 800,000 m Carriage traveled distance (which corresponds approximately to more than 15,000 A1 prints on average). Under normal conditions, it will be approximately more than 5 years before the printer needs a maintenance. If the printer is used more than the normal usage conditions, then it will need maintenance service more frequently.

Service Part	LIFE_VALUE	Maintenance Advice
Scan Axis Distance Covered	800,000 meters	PMKIT1
Right Spittoon Volume	600 cc	PMKIT2
Left Spittoon Volume	51 cc	PMKIT2

When these components of the printer exceed this amount, the Front Panel displays the following message:

http://www.justmanuals.com

"Maintenance #1 required"

"Maintenance #2 required"

Once one of the maintenance advised messages is displayed, the relevant preventive maintenance kit must be used to replace the most worn parts of the printer. See Removal and installation on page 141 when replacing the necessary parts.

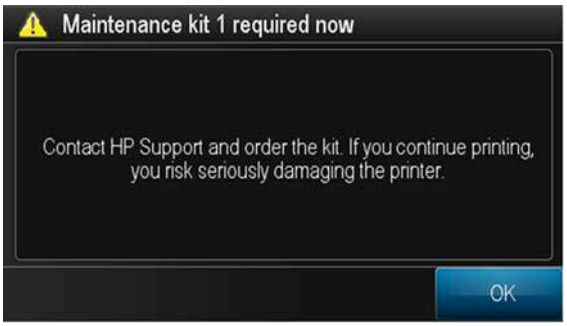
Preventive maintenance kits

Preventive maintenance kits are designed to replace high-usage parts before they fail, avoiding printer downtime.

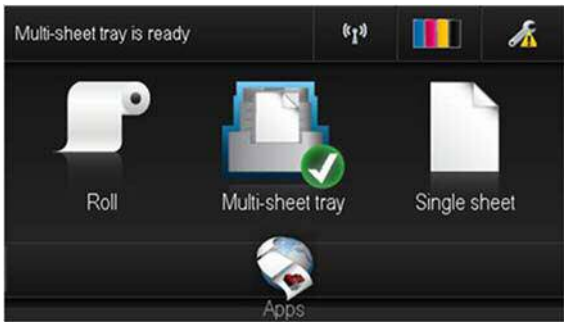
Warning message displayed on the front panel

The following is the process that the customer will see when a component has passed a maintenance usage threshold and needs replacement.

1. As the printer is turned on, if a component has passed its maximum-usage threshold a warning will be displayed. If the customer presses **OK**, the message disappears and will not reappear until the printer is turned on again.


Maintenance kit 1 required now
Contact HP Support and order the kit. If you continue printing, you risk seriously damaging the printer.
OK

2. A warning icon will remain over the wrench until the part has been replaced. If the wrench icon is touched, before going into the setup menu, the above warning message is shown again.



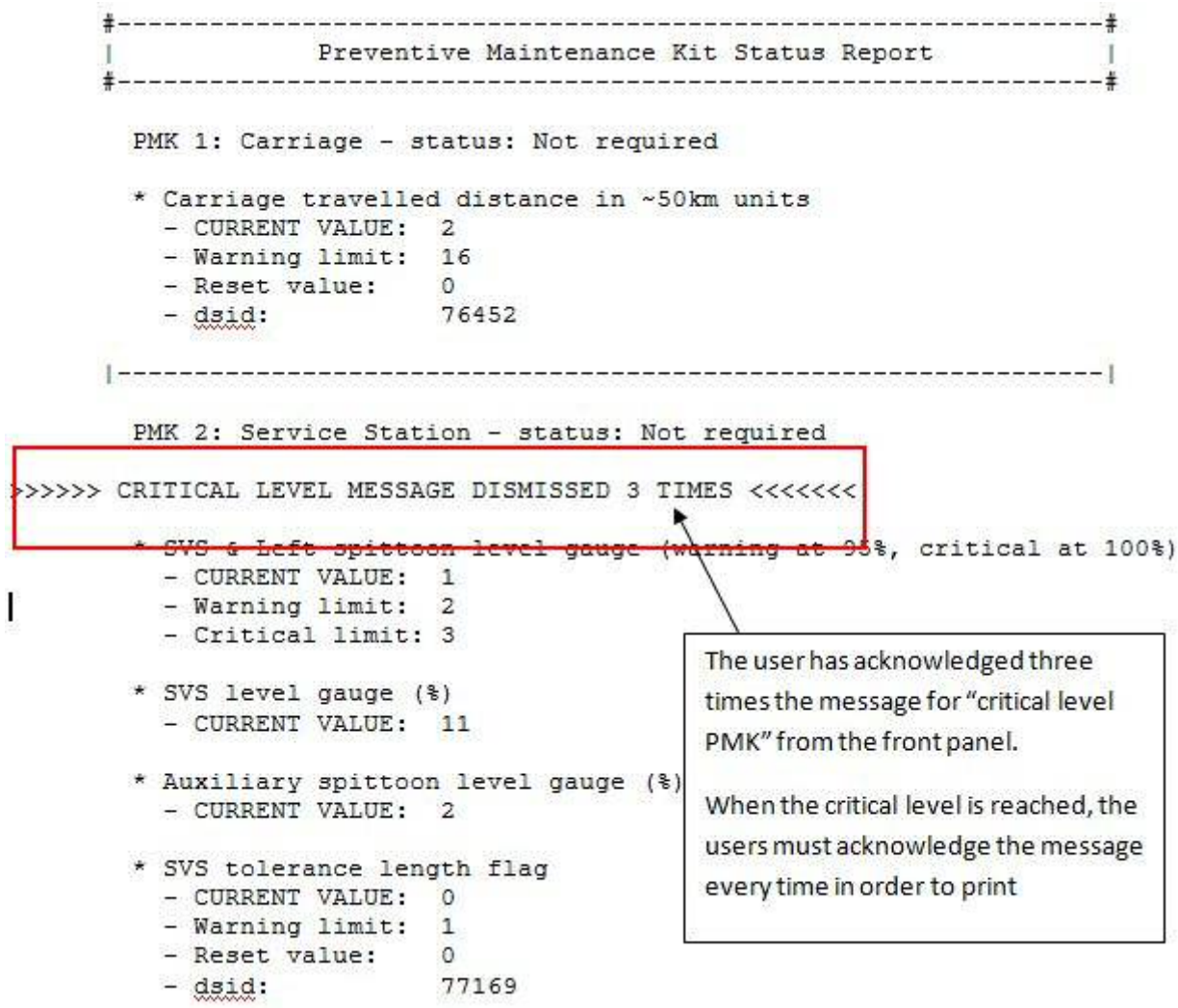
3. When the warning threshold is surpassed by a significant amount, reaching a critical threshold, the message becomes more assertive and the warnings appear more frequently.

PMK1 (Carriage)	800,000 meters
PMK2 (service station)	90% full of ink: 1 warning
	95% full of ink:1 warning per print
	100% full of ink: stops printing

Printing and interpreting the Preventive Maintenance Kit status report

The Preventive Maintenance Kit status report shows the status of the high-usage parts and how far they are from requiring replacement.

▲ To print the report, go to Diagnostics menu > Reports > PMK category.


Preventive Maintenance Kit Status Report
PMK 1: Carriage - status: Not required
* Carriage travelled distance in ~50km units
- CURRENT VALUE: 2
- Warning limit: 16
- Reset value: 0
- dsid: 76452
PMK 2: Service Station - status: Not required
>>>>>> CRITICAL LEVEL MESSAGE DISMISSED 3 TIMES <<<<<<<
* SVS & Left spittoon level gauge (warning at 95%, critical at 100%)
- CURRENT VALUE: 1
- Warning limit: 2
- Critical limit: 3
* SVS level gauge (%)
- CURRENT VALUE: 11
* Auxiliary spittoon level gauge (%)
- CURRENT VALUE: 2
* SVS tolerance length flag
- CURRENT VALUE: 0
- Warning limit: 1
- Reset value: 0
- dsid: 77169
The user has acknowledged three times the message for "critical level PMK" from the front panel.
When the critical level is reached, the users must acknowledge the message every time in order to print

Preventive Maintenance Kit #1 (Carriage)

PMK #1 for 24-in Carriage (CQ890-67063)		PMK #1 for 36-in Carriage (CQ893-67017)	
Part number	**Description**	**Part number**	**Description**
CQ890-67002	AmpXL 24 Carriage Assembly with Belt SV	CQ893-67011	AmpXL 36 Carriage Assembly with Belt SV
CQ890-67006	AmpXL Carriage Motor SV	CQ890-67006	AmpXL Carriage Motor SV
CQ890-67017	AmpXL Cutter Assembly SV	CQ890-67017	AmpXL Cutter Assembly SV
CQ890-67063	AmpXL 24-in PM Kit SV	CQ893-67017	AmpXL 36-in PM Kit SV

http://www.justmanuals.com

Preventive Maintenance Kit #2 (Service Station)

Part number	Description
CQ890-67045	AmpXL Service Station Assembly SV

7 Appendices

- Important links
- Front-panel home screen and menu map
- Support menu tree
- Extended Support menu tree
- How to check whether your computer is connected to your network
- Wireless troubleshooting report error cases
- CSR fliers

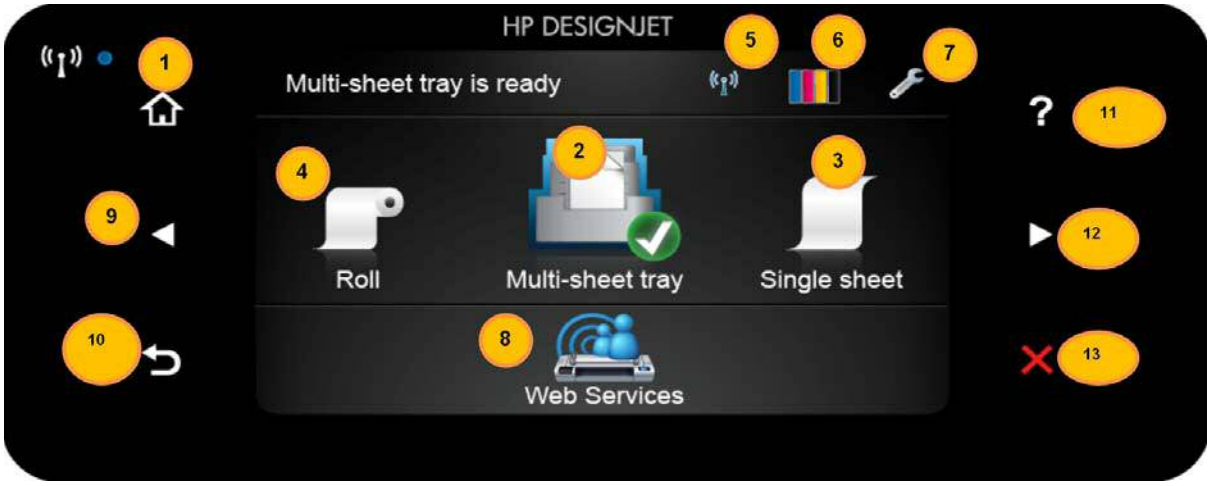
http://www.justmanuals.com

Important links

The following are links to useful sources of information.

- Printer drivers:
  - http://www.hp.com/go/T120/drivers
  - http://www.hp.com/go/T520/drivers
- Accessories:
  - http://www.hp.com/go/T120/accessories
  - http://www.hp.com/go/T520/accessories
- Support:
  - www.hp.com/go/T120/support
  - www.hp.com/go/T520/support

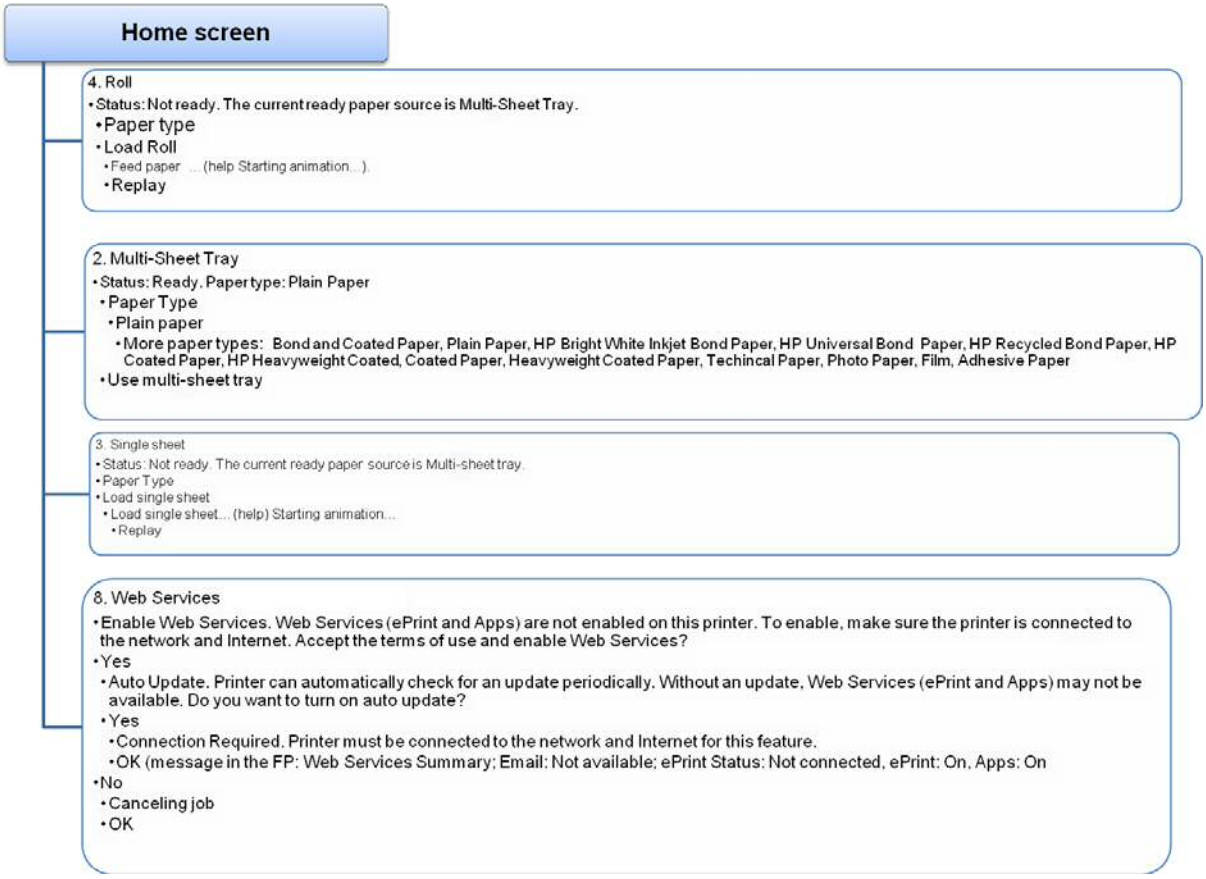
Front-panel home screen and menu map



IMPORTANT: This information is based on firmware release version AXP2CN1229AR. Features are subject to change in later firmware releases.

Number	Description	Number	Description
1	Home screen	8	Web Services menu
2	Multi-Sheet Tray menu	9	Previous item
3	Single-sheet menu	10	Back
4	Roll menu	11	Help
5	Bluetooth enables you to search for wireless devices to connect to the network	12	Next item
6	View the status of the ink cartridges	13	Cancel
7	Set up features		

http://www.justmanuals.com


Home screen
4. Roll
•Status: Not ready. The current ready paper source is Multi-Sheet Tray.
•Paper type
•Load Roll
•Feed paper ... (help Starting animation...).
•Replay
2. Multi-Sheet Tray
•Status: Ready. Paper type: Plain Paper
•Paper Type
•Plain paper
•More paper types: Bond and Coated Paper, Plain Paper, HP Bright White Inkjet Bond Paper, HP Universal Bond Paper, HP Recycled Bond Paper, HP Coated Paper, HP Heavyweight Coated, Coated Paper, Heavyweight Coated Paper, Techincal Paper, Photo Paper, Film, Adhesive Paper
•Use multi-sheet tray
3. Single sheet
•Status: Not ready. The current ready paper source is Multi-sheet tray.
•Paper Type
•Load single sheet
•Load single sheet... (help) Starting animation...
•Replay
8. Web Services
•Enable Web Services. Web Services (ePrint and Apps) are not enabled on this printer. To enable, make sure the printer is connected to the network and Internet. Accept the terms of use and enable Web Services?
•Yes
•Auto Update. Printer can automatically check for an update periodically. Without an update, Web Services (ePrint and Apps) may not be available. Do you want to turn on auto update?
•Yes
•Connection Required. Printer must be connected to the network and Internet for this feature.
•OK (message in the FP: Web Services Summary; Email: Not available; ePrint Status: Not connected, ePrint: On, Apps: On
•No
•Canceling job
•OK

8. Web Services (from above, printer not connected to Internet)

- Connection Required. Printer must be connected to the network and Internet for this feature.
  - OK
    - Web Services Summary / Email: Not available / ePrint Status: Not connected / ePrint: On / Apps: On
      - Settings / Web Services Settings
        - Display Email Address
        - Print Info Page
        - Printer Update
        - Set Web Proxy
        - ePrint (on/off)
        - Apps (on/off)
        - Remove Web Services
        - OK (goes to home screen)

5. Bluetooth

- Settings
  - a. Not Connected
    - i. Wireless (on/off)
    - ii. Wireless Setup Wizard
      - This wizard will help you set up a wireless connection for the printer.
      - Continue (button)
        - Single sheet / Status: Not ready / The current ready paper source is Multi-Sheet Tray.
        - Paper Type (button)
        - Load single sheet (button showing help animations)
        - Replay (button)
      - Wi-Fi Protected Setup
      - View Network Summary
        - View Wired > IP not applicable / MAC: 101F74700458 / Hostname: HP70036D
        - Print Details (button to Printing report (animation of HP logo) Paper source: Multi-Sheet Tray / Paper type: Plain paper
        - OK
        - View Wired (a drop-down menu takes you to the View Wired screen)

          View Wireless (a drop-down menu takes you to the Wireless Summary screen)
      - Print Wireless Network Test
      - Print Network Configuration
      - Advanced Setup
        - Select I/O timeout : 30 s; 1 min; 2 min; 4.5 min; 5 min; 10 min; 15 min; 20 min; 30 min
        - Link Speed: Automatic; 10-Full; 10-Half; 100-Full; 100-Half
        - IP Settings (changing the IP address will remove the printer from the network)

          OK (button activated): Automatic (DHCP) (button activated); Manual (Static) (button not activated)
        - Hostname > Hostname: HP70036D

          Change (button without option to select); OK (button with option to click that takes you back to the Advanced Setup screen)
      - Restore Network Defaults

http://www.justmanuals.com

- Print Details (button not activated)
- OK (goes to home screen)

b. Connected IP:xxx.xxx.x.xx. MAC:101G74700458 Hostname: HPxxxxxx

i. Wireless (on/off)

ii. Wireless Setup Wizard

- Wireless connection has already been set up. Are you sure you want to set it up again?
  - Yes (button that allows you to select but nothing happens)
  - No (button that allows you to select and then the options below appear)
- Wi-Fi Protected Setup
- View Network Summary
  - View Wired (a drop-down menu takes you to the View Wired screen)
  - View Wireless (a drop-down menu takes you to the Wireless Summary screen)
- Print Wireless Network Test
- Print Network Configuration
- Advanced Setup
  - Select I/O timeout : 30 s; 1 min; 2 min; 4.5 min; 5 min; 10 min; 15 min; 20 min; 30 min
  - Link Speed: Automatic; 10-Full; 10-Half; 100-Full; 100-Half
  - IP Settings (changing the IP address will remove the printer from the network)

    OK (button activated): Automatic (DHCP) (button activated); Manual (Static) (button not activated)
  - Hostname > Hostname: HP70036D

    Change (button without option to select); OK (button with option to click that takes you back to the Advanced Setup screen)
- Restore Network Defaults
- Print Details (button not activated)
- OK (goes to home screen)

6. Estimated ink levels

- More (button that takes you to a drawing of the ink levels of all cartridges)
- Print Report
  - Printing Report (message of printing in progress with animation of HP logo)
  - Paper source: Multi-Sheet Tray / Paper type: Plain Paper

7. Setup (Wireless off)

1. Last page
   - Last page is not available to reprint (there is a drop-down menu with numbers)
   - Reprint (button that takes you back to the Setup menu)
2. Form feed
3. Form feed and cut
4. Connectivity
   a. Not Connected
   b. Wireless (on/off)
   c. Wireless Setup Wizard

      This wizard will help you set up a wireless connection for the printer.

      i. Press Print Guide for easy wireless setup instruction

      ii. Print Guide
         - Printing Report
            - Paper source: Multi-Sheet Tray
            - Paper type: Plain Paper
            - Wi-Fi Protected Setup
            - Setting up the network through Wi-Fi Protected Setup (WPS) has timed out
            - For diagnostic information, press Print Report. For help, press ?
            - Print Report
            - OK
            - Continue
         - Searching for wireless routers...

   d. Wi-Fi Protected Setup

      i. Two ways to set up using Wi-Fi Protected Setup (WPS):
         - Use the WPS button, if available, on your router.
         - Enter the PIN generated by the printer in the router's configuration software.

           For help, press ?

      ii. Continue
         - Wi-Fi Protected Setup
            - Push Button
            - Wi-Fi Protected Setup

http://www.justmanuals.com

On the router, press and hold the WPS button for 3 seconds to connect to the network.

- Show Me
  - Starting animation...

    Replay

    Done

iii. PIN

e. View Network Summary

- View Wired
  - Wired Summary

    IP: Not applicable

    MAC: 02BAD0AD5AB5

    Hostname: HPxxxxxx
  - Print Details
  - OK
- View Wireless

f. Print Wireless Network Test

g. Print Network Configuration

h. Advanced Setup

i. Restore Network Defaults

5. Image quality maintenance

- Printhead information
- Align printhead
- Clean printhead
- Replace printhead
- Print diagnostic image
- Paper advance calibration
  - Calibrate ready paper
  - Reset ready paper calibration

6. Printer preferences
    - Screen Brightness (there is a picture of brightness regulation)
        - OK
    - Language
        - English, Français, Deutch, Português, Español, Italiano, Japanese, Korean, Chinese, Taiwanese, etc.
    - Country/Region
        - USA, Canada, Australia, India, UK, Singapore, New Zealand, South Africa, Hong Kong, Israel, Thailand, Saudi Arabia, UAE, Malaysia, Philippines, Ireland, Indonesia, Egypt, Kuwait, Jordan, Pakistan, Qatar, Lebanon, Vietnam, Argentina, Austria, Belarus, Belgium, Brazil, Bulgaria, Chile, China, Columbia, Costa Rica, Croatia, Czech Republic, Denmark, Ecuador, Estonia, Finland.
    - Keyboard: QWERTY (selected) /AZERTY/QWERTZ
    - Auto Off: Off (selected) / 2 Hours/ 4 Hours/ 8 Hours/ 12 Hours
    - Sleep: After 5 Minutes / After 15 Minutes / After 30 Minutes (selected) / After 60 Minutes / After 120 Minutes / After 240 Minutes
    - Print retrieval : Select drying time / Enable cutter
7. Anonymous usage information
8. Internal prints
    - Demo prints
    - User information prints
9. Service menu
    - Restore factory settings
    - Reset all paper calibration

7. Setup (Wireless on)

1. Last page
    - Last page is not available to reprint (there is a drop-down menu with numbers)
    - Reprint (button that takes you back to the Setup menu)
2. Form feed
3. Form feed and cut
4. Connectivity
    a. Connected
    b. Wireless (on/off)

http://www.justmanuals.com

c. Wireless Setup Wizard

This wizard will help you set up a wireless connection for the printer.

i. Press Print Guide for easy wireless setup instruction

ii. Print Guide

- Printing Report
  - Paper source: Multi-Sheet Tray
  - Paper type: Plain Paper
  - Wi-Fi Protected Setup
  - Setting up the network through Wi-Fi Protected Setup (WPS) has timed out
  - For diagnostic information, press Print Report. For help, press ?
  - Print Report
  - OK
  - Continue
- Searching for wireless routers...

d. Wi-Fi Protected Setup

i. Two ways to set up using Wi-Fi Protected Setup (WPS):

- Use the WPS button, if available, on your router.
- Enter the PIN generated by the printer in the router's configuration software.

  For help, press ?

ii. Continue

- Wi-Fi Protected Setup
  - Push Button
  - Wi-Fi Protected Setup

    On the router, press and hold the WPS button for 3 seconds to connect to the network.
- Show Me
  - Starting animation...

    Replay

    Done

iii. PIN

e. View Network Summary

- View Wired
  - Wired Summary

    IP: Not applicable

    MAC: 02BAD0AD5AB5

    Hostname: HPxxxxxx
  - Print Details
  - OK
- View Wireless

f. Print Wireless Network Test

g. Print Network Configuration

h. Advanced Setup

- Select I/O timeout: 30 s / 1 min / 2 min / 5 min / 10 min / 15 min / 20 min / 30 min
- Link Speed: Automatic / 10-Full / 10-Half / 100-Full / 100-Half
- IP Settings (changing the IP address will remove the printer from the network)
  - Automatic (DHCP)
  - Manual (static)
- Hostname > Hostname: HP70036D
  - Change

    Changing the hostname affects the existing connection between your computer and this printer. You would need to reestablish connection.

    OK
  - OK

i. Restore Network Defaults

5. Image quality maintenance

- Printhead information
- Align printhead
- Clean printhead
- Replace printhead

http://www.justmanuals.com

- Print diagnostic image
- Paper advance calibration
  - Calibrate ready paper
  - Reset ready paper calibration

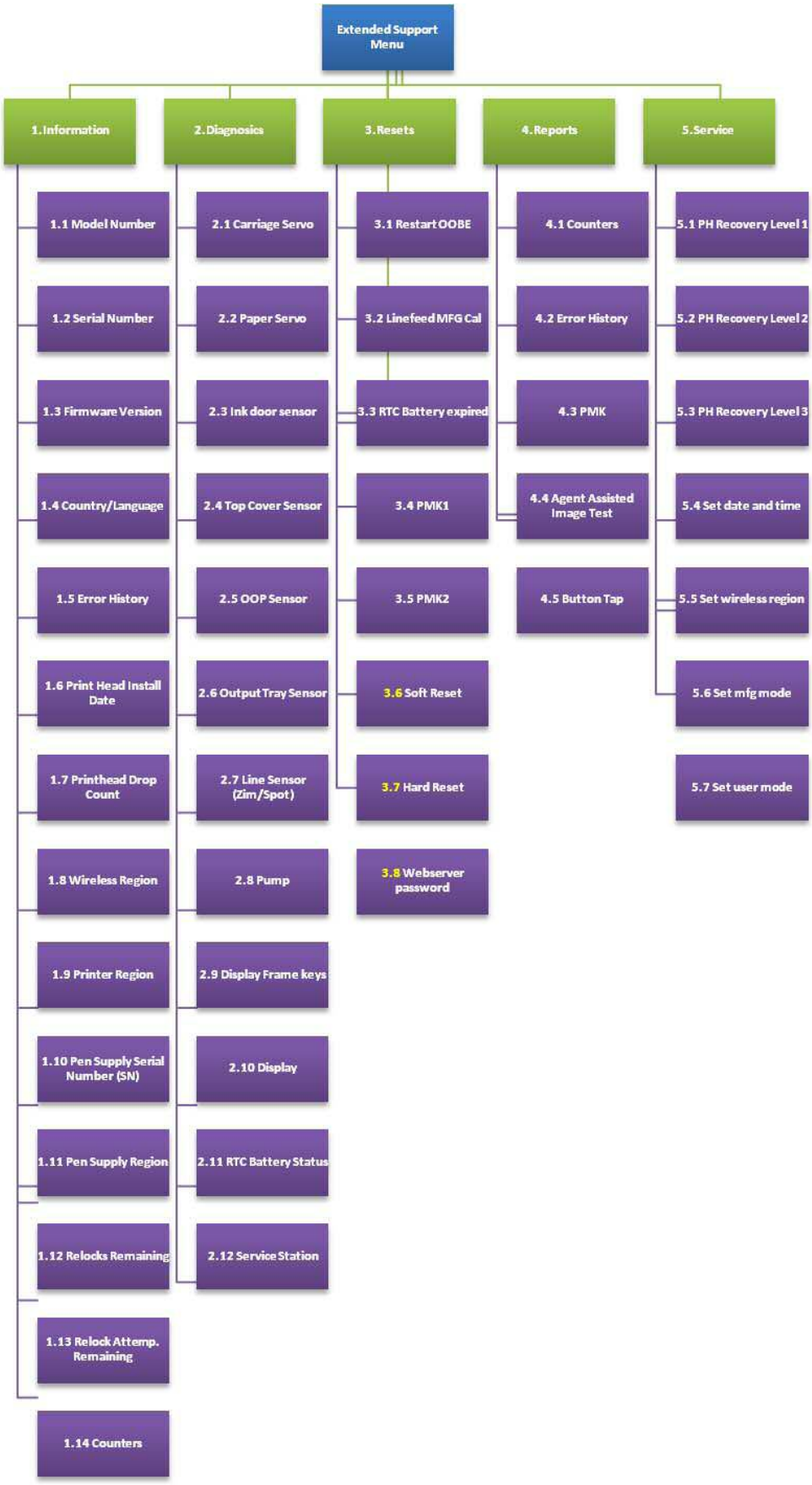
6. Printer preferences
   - Screen Brightness (there is a picture of brightness regulation)
     - OK
   - Language
     - English, Français, Deutch, Português, Español, Italiano, Japanese, Korean, Chinese, Taiwanese, etc.
   - Country/Region
     - USA, Canada, Australia, India, UK, Singapore, New Zealand, South Africa, Hong Kong, Israel, Thailand, Saudi Arabia, UAE, Malaysia, Philippines, Ireland, Indonesia, Egypt, Kuwait, Jordan, Pakistan, Qatar, Lebanon, Vietnam, Argentina, Austria, Belarus, Belgium, Brazil, Bulgaria, Chile, China, Columbia, Costa Rica, Croatia, Czech Republic, Denmark, Ecuador, Estonia, Finland.
   - Keyboard: QWERTY (selected) /AZERTY/QWERTZ
   - Auto Off: Off (selected) / 2 Hours/ 4 Hours/ 8 Hours/ 12 Hours
   - Sleep: After 5 Minutes / After 15 Minutes / After 30 Minutes (selected) / After 60 Minutes / After 120 Minutes / After 240 Minutes
   - Print retrieval : Select drying time / Enable cutter
7. Anonymous usage information
8. Internal prints
   - Demo prints
   - User information prints
9. Service menu
   - Restore factory settings
   - Reset all paper calibration

Support menu tree



http://www.justmanuals.com

Extended Support menu tree



How to check whether your computer is connected to your network

1. If you are not using a unique network name (SSID), then it is possible that the computer could be connected to the wrong network. The following steps can help you to determine whether your computer is connected to the correct network.

Windows

a. Click **Start**, click **Control Panel**, point to **Network Connections**, and then click **View Network Status** and **Tasks** – or – Click **Start**, select **Settings**, click **Control Panel**, double-click **Network Connections**, click the **View** menu, and then select **Details**.

   Leave the network dialog box open while you continue to the next step.

b. Disconnect the power cord from the wireless router. The connection status of the computer should change to **Not Connected**.

c. Reconnect the power cord to the wireless router. The connection status should change to Connected.

Mac OS X

▲ Click the **AirPort** icon in the menu bar at the top of the screen. From the menu that appears, you can determine if the AirPort is turned on and which wireless network the computer is connected to.

NOTE: For more detailed information about the AirPort connection, click **System Preferences** in the Dock, and then click **Network**. If the wireless connection is working correctly, a green dot appears next to AirPort in the list of connections. For more information, click the **Help** button in the window.

If you are unable to get the computer connected to your network, contact the person who set up your network or the router manufacturer as there may be a hardware issue with the router or computer.

If you are able to access the Internet and are using a computer running Windows, you can also access the HP Network Assistant at http://www.hp.com/sbso/wireless/tools-setup.html?jumpid=reg_R1002_USEN for help in setting up a network (this website is available in English only).

2. Print the printer's Wireless Configuration page. After the page has been printed, check the Network Status and URL. The Network Status is Ready if the printer is actively connected to a network, or Offline if it is not (in the latter case, run the Wireless Network Test). The URL is the network address assigned to the printer by the router; you need it to connect to the printer's Embedded Web Server.

3. If you have established that the computer and the printer both have active connections to a network, you can check whether they are on the same network by trying to access the printer's Embedded Web Server.

4. The printer may be too far away from the WiFi access point or there may be intervening objects that are preventing connection. You can try moving the printer closer to the WiFi acess point.

5. Check that the WEP key password entered is the correct one. The pass phrase capitalization, punctuation, etc., must all match exactly.

http://www.justmanuals.com

6. If you cannot access the Embedded Web Server and are sure that both the computer and printer have active connections to the same network, the firewall security software could be blocking communication. Temporarily turn off any firewall security software running on the computer, and try to access the Embedded Web Server again. If you can access it, try using the printer for printing.

   If you are able to access the Embedded Web Server and use the printer with the firewall turned off, you need to reconfigure your firewall settings to allow the computer and printer to communicate with each other over the network.

   If you are able to access the Embedded Web Server, but are still unable to use the printer even with the firewall turned off, try enabling the firewall software to recognize the printer.

7. Make sure the printer is online and ready.

   If you have the HP software installed, you can check the printer's status from your computer to see if the printer is paused or offline, preventing you from using it. To check the printer's status, complete the following steps:

Windows

a. From **Start** > **Settings**, and then click **Printers** or **Printers and Faxes**. - or - From **Start** > **Control Panel**, and then double-click **Printers**.

b. If the printers on the computer are not being displayed in Details view, click the **View** menu, and then click **Details**.

c. Do one of the following, depending on the printer status:

- If the printer is Offline, right-click the printer, and click Use Printer Online.
- If the printer is Paused, right-click the printer, and click Resume Printing.

d. Try using the printer over the network.

Mac OS X

a. Click System Preferences in the Dock, and then click Print & Fax.

b. Select the printer, and the click Print Queue.

c. If Jobs Stopped appears in the window that appears, click Start Jobs.

8. If you install the HP software a second time, the installer may create a second version of the printer driver in the Printers or Printers and Faxes folder (Windows only). If you have difficulties printing or connecting to the printer, make sure the correct version of the printer driver is set as the default.

   a. From **Start** > **Settings**, and then click **Printers** or **Printers and Faxes**. - or - From **Start** > **Control Panel**, and then double-click **Printers**.

   b. Right-click the printer icon and then click **Properties**, **Document Defaults**, or **Printing Preferences.**

c. On the **Ports** tab, look for a port in the list with a checkmark. The version of the printer driver that is connected wirelessly has **Standard TCP/IP Port** as the Port description, next to the checkmark.

d. Right-click the printer icon for the version of the printer driver that is connected wirelessly, and select Set as Default Printer.

9. Try restarting the HP Network Device Support service (Windows only).

   a. Delete any print jobs currently in the print queue.

   b. On the desktop, right-click My Computer or Computer, then click Manage.

   c. Double-click Services and Applications, then click Services.

   d. Scroll down the list of services, right-click HP Network Devices Support, then click Restart.

   e. After the service restarts, try using the printer over the network again.

   If you still cannot use the printer over the network, or if you have periodic problems in doing so, the firewall may be interfering, or there may be a problem with the network configuration or router. Contact the person who set up the network or the router manufacturer for help.

   If you are able to use the printer over the network, the network setup was successful.

http://www.justmanuals.com

Wireless troubleshooting report error cases

In the first column of the table below, W indicates Warning and F indicates Failure.

W /F	#	Description	Internal conditions and parameters	Internal details	Troubleshooting
W	0	Ethernet cable plugged in	Ethernet cable plugged in && ncaPolicy != nHot && powerOnEnabled == true && no SSID found	The Ethernet cable is plugged in. The printing device cannot connect to a wireless network while it is connected via Ethernet. To connect wirelessly, unplug the cable from the printing device and run these tests again.	ATTENTION: Your printer is unable to connect to your wireless router. SOLUTION 1: To connect wirelessly, disconnect the Ethernet network cable from your printer.
W	1	Ethernet cable plugged in and SSID found	Ethernet cable plugged in && ncaPolicy != nHot && powerOnEnabled == true && SSID found	A wireless network was found that matches what you have configured (%s). However, the Ethernet cable is plugged in, which will prevent you from connecting to it. To connect wirelessly, unplug the cable from the printer and run these tests again. The %s parameter will be the SSID name that is displayed on the advanced wireless networking webpage.	ATTENTION: Your printer is unable to connect to your wireless router. SOLUTION 1: To connect wirelessly, disconnect the Ethernet network cable from your printer.
W	2	Wireless adaptor disabled	powerOnEnabled == false	The wireless network interface in the printing device (%s) is not enabled. You cannot connect to a wireless network until this is turned on. If you want to connect to a wireless network, consult the documentation that came with the printer on how to enable the wireless interface. The first %s parameter will be the name of the interface, i.e. “Wifi0”.>>	ATTENTION: The wireless radio on your printer is currently turned off. SOLUTION 1: To connect wirelessly, disconnect the Ethernet network cable from your printer. Refer to the assembly instructions that came with your printer.
F	4	Radio hardware not functioning properly	powerOnEnabled == ncaTrue && radioHardwareStatus != ncaRSInitialized	The wireless network interface (%s) is not functioning properly. The printer cannot connect to a wireless network. This may be a problem with the printer hardware. As a first step, disconnect the power from the printer, wait a few seconds, then plug the power back in and re-run these tests. If this error message persists, the printer will need to be serviced. The %s parameter will be the name of the interface, i.e. “Wifi0”.	ATTENTION: The wireless radio is not functioning. Contact HP support. The Wireless PCA needs to be repaired.

W/F	#	Description	Internal conditions and parameters	Internal details	Troubleshooting
F	100	Possible MAC filtering	Trying to associate && mode == infrastructure && SSID matches && completion code != AkmFailedPmkInvalid all parameters consistent	The printer is configured to connect to a wireless network (%s). An access point (AP) with this SSID has been found and its settings are consistent with those configured in the printer, but you are **not** connected. Some possible causes and fixes are: The printer may be temporarily experiencing a problem. Turning the printer off and then back on may correct this problem. The AP may be temporarily experiencing a problem. Turning the AP off and then back on may correct this problem. Note that turning off the AP will cause other connected devices (computers, printers, etc.) to lose their network connection until the AP is turned back on. The AP firmware may be out of date. Check the manufacturer's website to see if an update is available. MAC address filtering may be enabled on the AP. This can prevent the printer from connecting if its MAC address is not in the AP's approved list of devices. The person who initially set up your network may have done this for added security. If this is the case you can either disable MAC filtering in the AP, or add the printing device's MAC address (%02x:%02x:%02x:%02x:%02x:%02x) to the approved list in the AP. Refer to the documentation that came with the AP for more information about MAC address filtering. The first %s parameter will be the SSID name that is displayed on the advanced wireless networking webpage. The second set of %s parameters will be the MAC address of the printer.	ATTENTION: Your printer is unable to connect to your wireless router. MAC address filtering may be enabled on your wireless router, which can prevent your printer from connecting to your wireless network during setup. SOLUTION 1: If MAC address filtering is enabled and you would like to keep it enabled, you must add the MAC address of your printer (available in this Test Report) to the list of permitted devices for your wireless router before continuing.

http://www.justmanuals.com

W /F	#	Description	Internal conditions and parameters	Internal details	Troubleshooting
F	101	Consistency check when only one AP found with matching name while trying to associate	mode == infrastructure && SSID matches exactly one AP && not all parameters consistent	The settings you entered in the printer do not match those of the wireless network you are trying to connect to (%s). Connection was not made. Ensure that all of the wireless settings in the printer match those in the access point (AP) for this network. Assuming that the settings in the AP are the correct ones, change the wireless network settings in the printer. Consult the documentation that came with the printing device on how to do this. If you do need to change the settings in the AP then consult the documentation that came with the AP on how to do this. Note that this will require you to update settings in all devices (computers, printers, etc.) that connect wirelessly through this AP. The first %s parameter will be the SSID name that is displayed on the advanced wireless webpage.	ATTENTION: Your printer settings do not match your wireless router settings. SOLUTION 1: Run the Wireless Setup Wizard to configure your printer.
W	103	AutoIP configured	Adaptor assigned an AutoIP		
W	200	Check that configuration has manufacturer default SSID for access point	currentState != ncaASOff && mode == infrastructure && SSID matches entry in manufacturer default list	Your printer is configured to connect to a wireless network with a manufacturer's default SSID name (%s). You should change the name to something unique to you in order to avoid connecting to the wrong network. You will most likely experience network problems if you do not correct this problem. Even if the network appears to be functioning correctly now, it may not in the future. Refer to the documentation that came with your access point to change the SSID name. If you do change the SSID name of the wireless network, note that this will require you to update settings in all devices (computers, printers, etc.) that connect to this network. The %s parameter will be the SSID name that is displayed on the advanced wireless networking webpage.	ATTENTION: Your wireless network is currently using the manufacturer's default network name (SSID). It is recommended that you change your network name (SSID) to be unique, to avoid connecting to other wireless networks that may also be using the same default network name. If you change your network name, you will need to configure the SSID on all wireless devices to match your new network SSID.

W /F	#	Description	Internal conditions and parameters	Internal details	Troubleshooting
F	20 1	SSID not found, infrastructure mode	Trying to associate && mode == infrastructure && configured SSID is not found in directed scan list	The SSID (%s) that you have entered in the printer does not match any of the available wireless network access points (AP). Connection was not made. The undirected scan list above shows all of the access points that were found nearby that are broadcasting their SSID. Your access point may not be in this list if broadcasting has been disabled. Note that if broadcasting is off it won't affect your ability to connect, just the visibility of the AP in the undirected scan list. When the SSID is correct and the AP is functioning properly, it will show up in the directed scan list above. Some possible causes and fixes for the connection problem are: You may have entered an incorrect SSID in the printing device. Refer to the documentation that came with the printer for information on how to change the SSID. The AP may be powered off. Make sure your AP is powered on and that the SSID is correct. Refer to the documentation that came with your AP to verify its SSID. The printer may be too far from your AP or there may be intervening objects that are preventing connection. You can try moving the printer and the AP closer together. The %s parameter will be the SSID name that is displayed on the advanced wireless networking webpage.	ATTENTION: Your printer is unable to connect to your wireless router. SOLUTION 1: Check that your wireless router is powered on. SOLUTION 2: Check that your printer network name (SSID) matches your wireless router network name (SSID) exactly. If they do not match exactly, run the Wireless Setup Wizard to configure your printer.

http://www.justmanuals.com

W /F	#	Description	Internal conditions and parameters	Internal details	Troubleshooting
F	202	SSID not found, ad hoc mode	Trying to associate && mode == ad hoc && configured SSID is not found in directed scan list	The printer has created an ad-hoc wireless network with SSID %s. However, no other wireless devices have been found that are using this SSID. Connection was not made. This is not a problem if the other devices you want to connect to are not powered on yet. If they are powered on then some possible causes and fixes are: You may have entered an incorrect SSID in the printer. In order to form an ad-hoc wireless network, all the devices must be using the same SSID. Refer to the documentation that came with the printer for information on how to change the SSID. The printer may be too far from any other devices in the wireless network or there may be intervening objects that are preventing connection. You can try moving the printer closer to the other devices. Note that you cannot connect to an access point (AP) using the ad-hoc method. Ad-hoc mode allows devices to communicate directly without the use of an AP. Infrastructure mode allows you to connect to a wireless network using an AP. Refer to the documentation that came with the printer if you want to connect to a wireless network with an AP. The %s parameter will be the SSID name that is displayed on the advanced wireless networking webpage.	ATTENTION: Your printer is unable to connect to your wireless router. SOLUTION 1: Check that your access point is powered on. SOLUTION 2: Check that your printer network name (SSID) matches your access point network name (SSID) exactly. If they do not match exactly, run the Wireless Setup Wizard to configure your printer.
F	203	SSID found if doing case-insensitive search, ad hoc and infrastructure	Associated or trying to associate && any mode && non-exact SSID match found in undirected scan. Non-exact match means case-insensitive compare is true and case-sensitive compare is false.	A wireless network was found (%s) whose name closely matches the name you have entered (%s) in the printer's wireless settings. You are not connected to this network. If this is the network you are trying to connect to, you will need to change the SSID name you have entered in the printer. Refer to the documentation that came with the printer for information on how to do this. Note that network SSID names must be entered exactly as they appear in the list above: capitalization, punctuation, etc., must all match. The first %s parameter will be the SSID name found during the un-directed scan, the second %s parameter will be the SSID name that is displayed on the advanced wireless networking webpage.	ATTENTION: Your printer is unable to connect to your wireless router. A network name (SSID) was found that closely matches your wireless network name except for upper/lower case. SOLUTION 1: Run the Wireless Setup Wizard to re-enter the SSID correctly.

W /F	#	Description	Internal conditions and parameters	Internal details	Troubleshooting
W	400	Signal strength when associated	Associated && adaptor signal strength < -85 dB	The signal strength of the wireless network you are connected to (%s) is %d dBm. This is below -85 dBm which may result in poor performance or an intermittent connection. If you are using an access point (AP), bring the printing device and AP closer together to increase the signal strength. If you are connecting to an ad-hoc wireless network, bring the printer closer to other devices in the wireless network. In either case there may also be intervening objects that are causing the signal strength to weaken. Large metal objects such as refrigerators, water heaters, or office furniture can block wireless signals. Try to ensure that such objects are not directly between the printer and the AP or other devices in the wireless network.	ATTENTION: The wireless signal strength between your printer and wireless router is weak. SOLUTION 1: Move your printer closer to your wireless router and avoid obstructions such as walls and large metal objects. SOLUTION 2: After moving your printer, run the wireless network test to verify the signal strength.

http://www.justmanuals.com

W/F	#	Description	Internal conditions and parameters	Internal details	Troubleshooting
W	500	Check for multiple access points (or wireless repeaters) with the target SSID	Associated or trying to associate && infrastructure mode && number of directed scans > 1	There were %d access points (APs) (or wireless repeaters) with your configured SSID (%s) found in the area. The printer will connect to the one with the strongest signal. If you've set up a network with multiple APs, this is a normal condition. Note that the APs must be connected to the same LAN, usually via a wired connection. A special case is a wireless repeater, which is an AP but uses a wireless connection to connect to a "master" AP. If you have not set up a network with multiple APs, it means that someone else has a network with the same SSID nearby, in which case you could connect to the other network instead of your own. You will probably experience network problems if you do not correct this problem. Even if the network appears to be functioning correctly now, it may not in the future. You can solve this problem by creating a wireless network with a unique SSID. Refer to the documentation that came with your access point for information on how to change its SSID. When you change the SSID name of the wireless network, note that this will require you to update settings in all devices (computers, printers, etc.) that connect to this network. The %d parameter is an integer value of the number of networks found with the name, the %s parameter will be the SSID name found in the network scan.	ATTENTION: More than one wireless router has been found that matches your wireless network name (SSID). If this is not intended, your printer may connect to the wrong wireless network. To avoid this, change your wireless network name (SSID) to be unique. If you change your network name, you will need to configure the SSID on all wireless devices to match your new network SSID.

W /F	#	Description	Internal conditions and parameters	Internal details	Troubleshooting
F	600	Incorrect WEP key	Connected && associated && encryption mode == WEP && wepDecryptStatus == ncaD11WDSFailed	The printer is connected to a wireless network (%s) that requires a WEP key. The key you have provided does not match what is expected. Although it looks as if a valid connection is made, the printer will not receive any data. You will need to enter a matching WEP key in the printer. Refer to the documentation that came with the printer for information on how to change the WEP key. The person who initially set up your network should be able to provide you with the correct WEP key to use. Alternately, if you are connecting to an access point (AP), you may be able to find the matching WEP key from the AP. Consult the documentation that came with the AP on how to do this. The %s parameter will be the SSID name found in the network scan.	ATTENTION: The WEP security key configured on your printer does not match your wireless router setting. The WEP key index setting on your printer has been changed from the default setting of "1". This may cause problems when connecting to your wireless network if your wireless router is not using the same WEP key index value. SOLUTION 1: Run the Wireless Setup Wizard to re-enter your wireless network WEP security key.
I	601	Unknown WEP decrypt status	Connected && associated && encryption mode == WEP && wepDecryptStatus == ncaD11WDSUnknown	The printer is connected to a wireless network (%s) that requires a WEP key. However, no data have been sent to the printer. Because of this, it is unknown whether the WEP key entered in the printer matches that of the wireless network. Usually this is a temporary condition. Once some data are sent, the printer will be able to determine whether the WEP keys match. Try running this report again in a few seconds. The %s parameter will be the SSID name found in the network scan.	

http://www.justmanuals.com

W /F	#	Description	Internal conditions and parameters	Internal details	Troubleshooting
W	602	WEP key index is different from 1	Connected && associated && encryption mode == WEP && wepDecryptStatus == ncaD11WDSUnknown || ncaD11WDSFailed && wepKeyIndex != 1	The printer is connected to a wireless network (%s) that requires a WEP key. Data are not being received. You are using a WEP key index of %d. A WEP key index of 1 is typical. If the index does not match what the wireless network is expecting, it will prevent the printer from being able to receive data. The person who initially set up your network should be able to provide you with the correct WEP key index to use. Alternately, if you are connecting to an access point (AP), you may be able to find the matching WEP key index from the AP. Consult the documentation that came with the AP on how to do this. If you do need to change the WEP key index of the printer, refer to the documentation that came with the printer for information on how to do this. The %d parameter will be the index, the %s parameter will be the SSID name found in the network scan.	ATTENTION: The WEP key index setting on your printer has been changed from the default setting of "1". This may cause problems when connecting to your wireless network if your wireless router is not using the same WEP key index value. SOLUTION 1: Run the Wireless Setup Wizard to re-enter your wireless network WEP security key.
F	604	Non-default WEP Authentication	associationState != ncaD11ASAssociated && communicationMode == infrastructure && wirelessEncryptionMode == WEP && wirelessAuthMode != OpenThenShared	The printer is configured to connect to a WEP wireless network (%s), and the printer's configured authentication method (\"%s\") has been changed from its default setting (\"Automatic (Open then Shared)\"). This could potentially cause the printer to be unable to connect to the wireless network. The printer's default setting should always work and avoids any potential future problems. Unless you know that the printer's current setting is correct for your wireless network, it is recommended that this setting be changed back to the default. Refer to the documentation that came with the printer for information on how to configure the WEP authentication method. The first %s parameter will be the SSID name found in the network scan , the second %s parameter will be the actual value of the setting.	ATTENTION: The WEP key authentication setting on your printer has been configured to a non-default setting. This may cause problems when connecting to your wireless network if your wireless router is not using the same WEP authentication method. SOLUTION 1: Refer to your printer documentation for information on configuring WEP.

W /F	#	Description	Internal conditions and parameters	Internal details	Troubleshooting
F	605	Non-default WPA Encryption	Associated or trying to associate && communicationMode == infrastructure && wirelessAuthMode == ncaD11AMWPA_PSK && wirelessEncrypMode != ncaD11EMAESorTKIP	The printer is configured to connect to a WPA-PSK wireless network, (%s) and the printer's configured encryption method (\"%s\") has been changed from its default setting (\"Automatic (AES or TKIP)\"). This could potentially cause the printer to be unable to connect to the wireless network. The printer's default setting should always work and avoids any potential future problems. Unless you know that the printer's current setting is correct for your wireless network, it is recommended that this setting be changed back to the default. Refer to the documentation that came with the printer for information on how to configure the WPA-PSK encryption method. The first %s parameter will be the SSID name found in the network scan , the second %s parameter will be the actual value of the setting.	ATTENTION: The WPA encryption method on your printer has been configured to a non-default setting. This may cause problems when connecting to your wireless network if your wireless router is not using the same WPA encryption method. SOLUTION 1: Refer to your printer documentation for information on configuring WPA.

http://www.justmanuals.com

W /F	#	Description	Internal conditions and parameters	Internal details	Troubleshooting
F	606	Non-default WPA Authentication	associationState != ncaD11ASAssociated && communicationMode == infrastructure && wirelessAuthMode == ncaD11AMWPA_PSK && rsnAuthType != ncaD11ATAutoWPA	The printer is configured to connect to a WPA-PSK wireless network, (%s) and the printer's configured WPA version (\"%s \") has been changed from its default setting (\"Automatic (WPA2 or WPA1)\"). This could potentially cause the printer to be unable to connect to the wireless network. The printer's default setting should always work and avoids any potential future problems. Unless you know that the printer's current setting is correct for your wireless network, it is recommended that this setting be changed back to the default. Refer to the documentation that came with the printer for information on how to configure the WPA-PSK WPA version. The first %s parameter will be the SSID name found in the network scan , the second %s parameter will be the actual value of the setting.	ATTENTION: The WPA authentication method on your printer has been configured to a non-default setting. This may cause problems when connecting to your wireless network, if your wireless router is not using the same WPA authentication method. SOLUTION 1: Refer to your printer documentation for information on configuring WPA.
F	609	Non-standard WPA mode	Radio connected to an 802.11n-only AP which supports WPA with TKIP.		ATTENTION: Your printer is unable to connect to your wireless router. This may be caused by the following settings on your wireless router: 1) 802.11n devices only and 2) WPA-TKIP only encryption. WPA-TKIP is no longer allowed for newer certified wireless 802.11n devices because WPA-AES provides stronger security. SOLUTION 1: Change your wireless router encryption setting to "WPA-AES" or "WPA-AES or TKIP" (also called "mixmode"), then run the printer's Wireless Setup Wizard again.

CSR fliers

- Accessory Tray flier
- Front Cover flier
- Ink Cartridge Cover flier
- Multi-Sheet Tray Extension flier
- Out-Of-Paper Sensor flier
- Output Tray flier
- Output Tray Sensor flier
- Printhead Replacement Kit flier

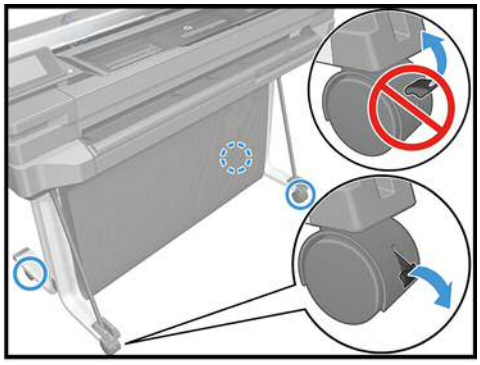
http://www.justmanuals.com

Accessory Tray flier

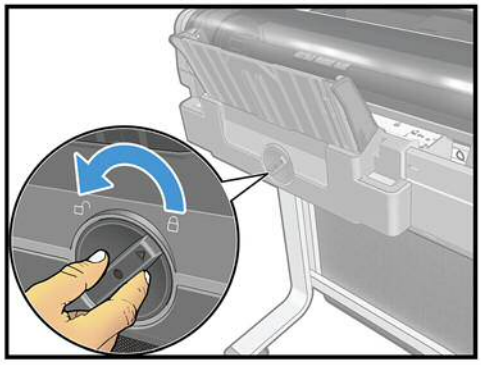
1



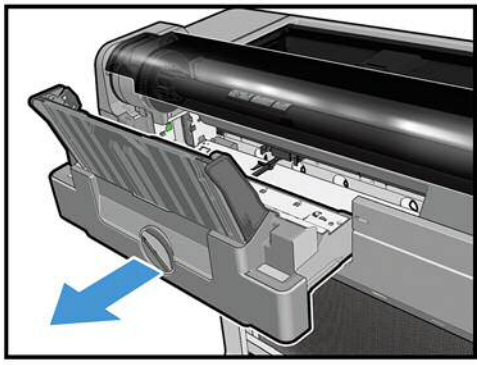
2



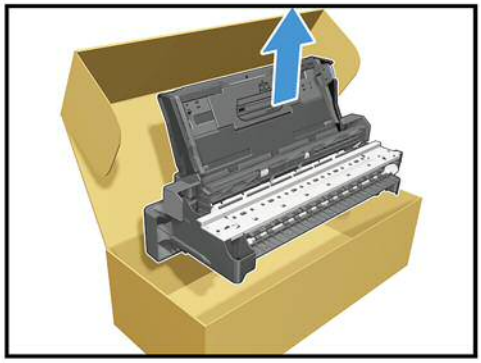
3



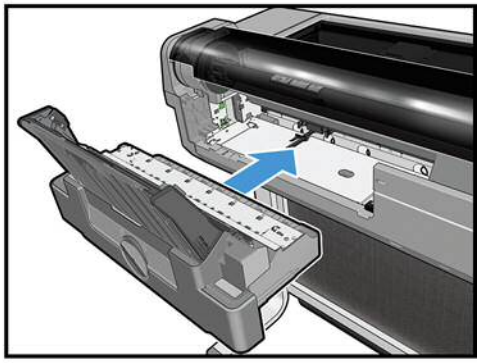
4



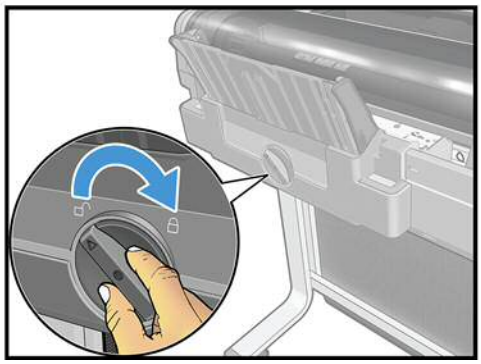
5



6



7

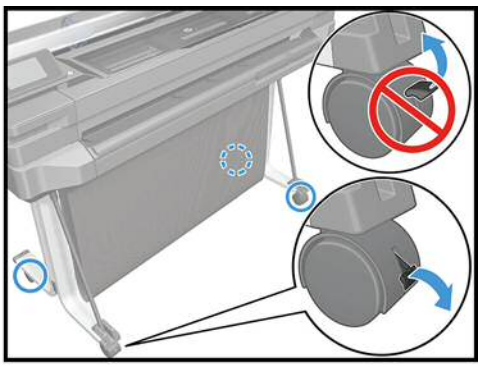


Front Cover flier

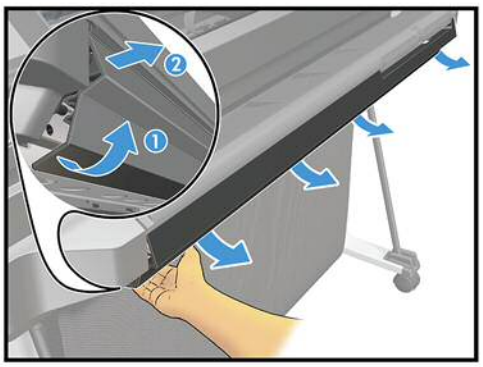
1



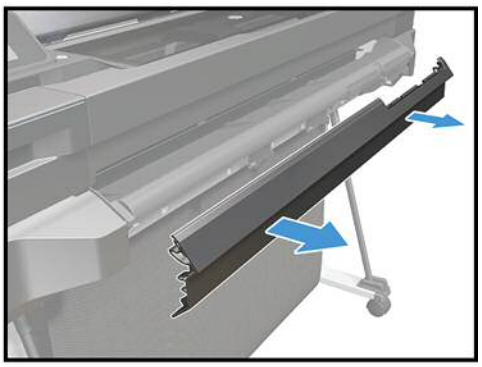
2



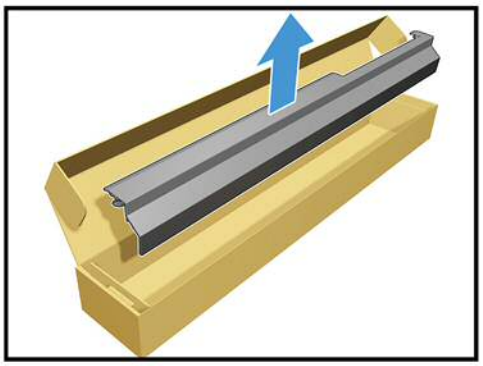
3



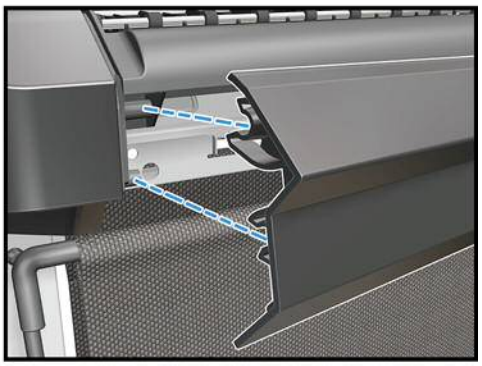
4



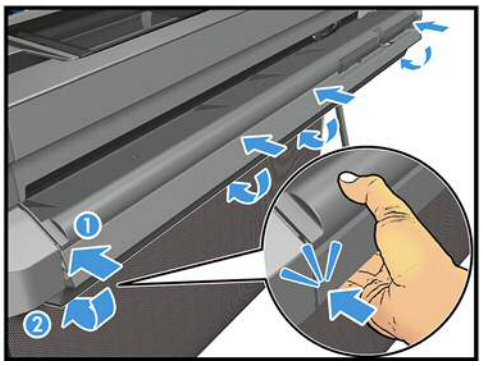
5



6



7



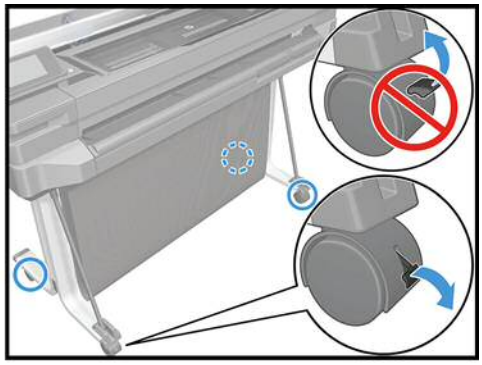
http://www.justmanuals.com

Ink Cartridge Cover flier

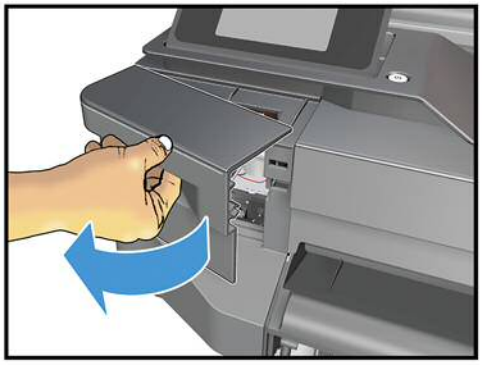
1



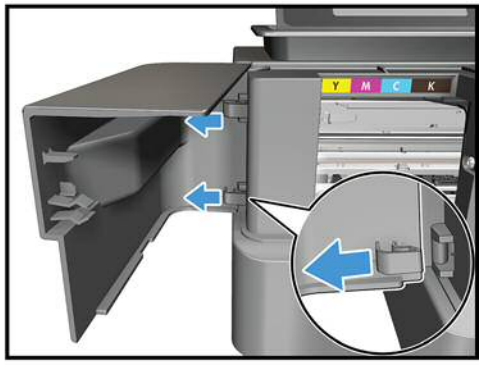
2



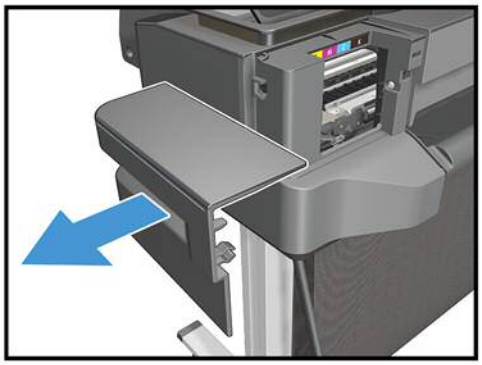
3



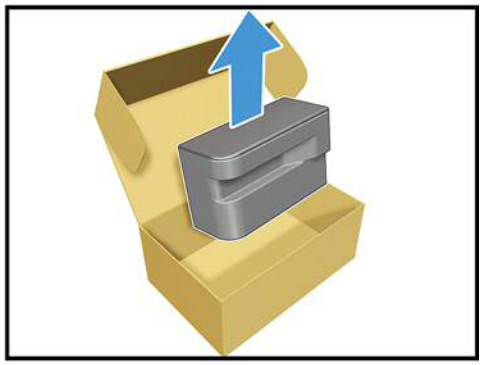
4



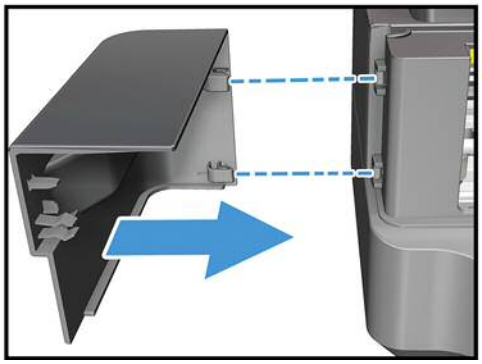
5



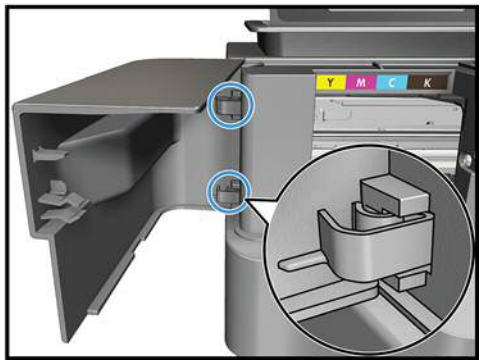
6



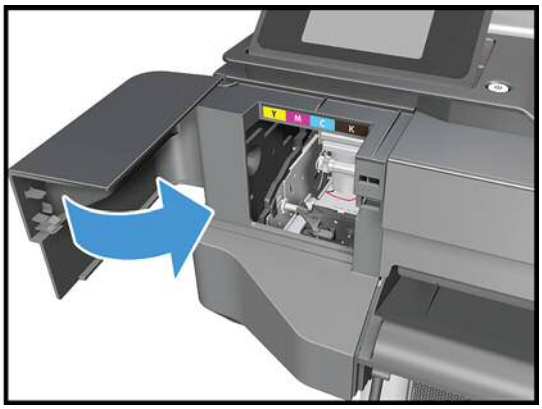
7



8



9



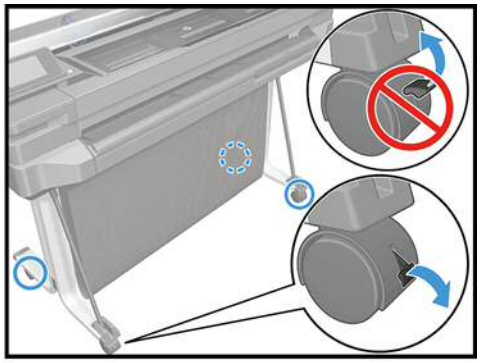
http://www.justmanuals.com

Multi-Sheet Tray Extension flier

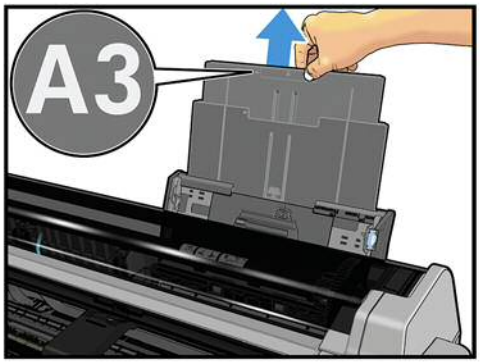
1



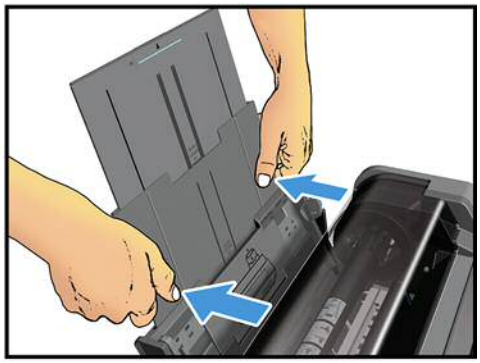
2



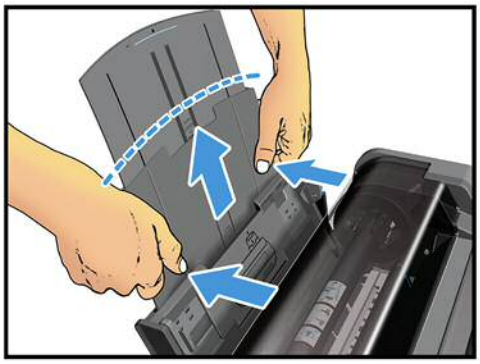
3



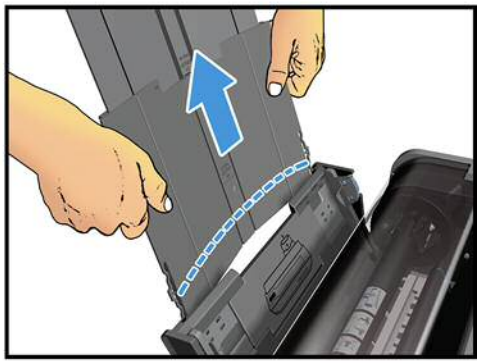
4



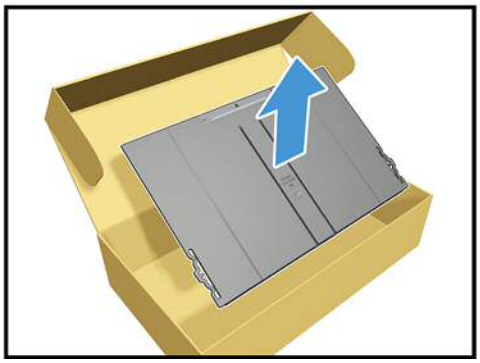
5



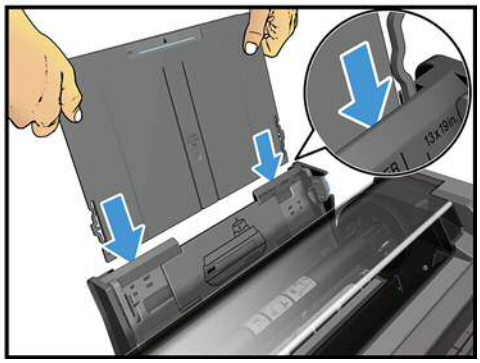
6



7



8



9



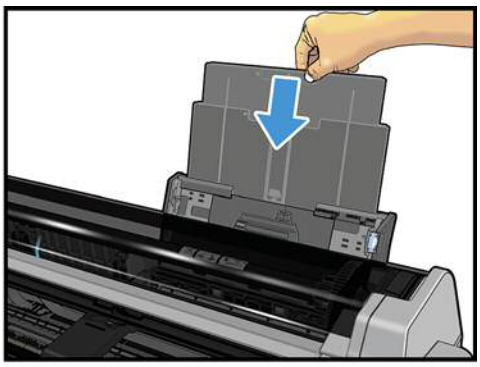
http://www.justmanuals.com

Out-Of-Paper Sensor flier

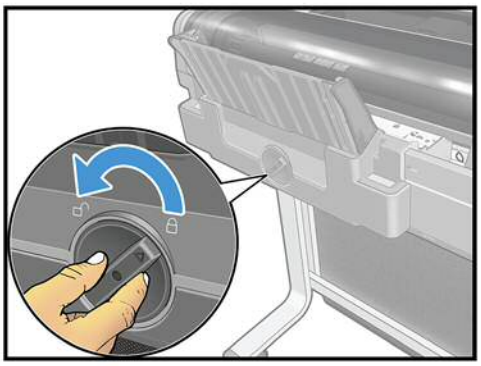
1



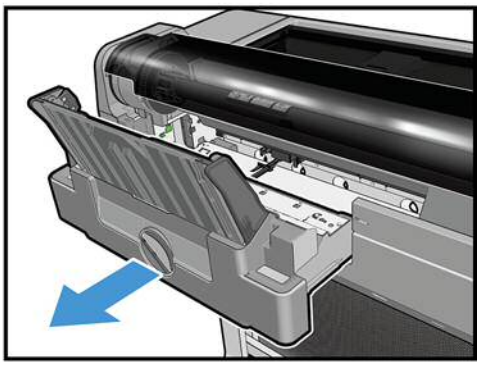
2



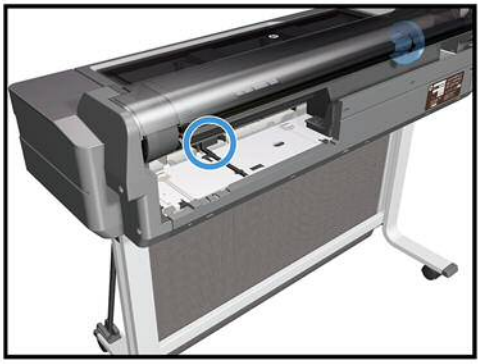
3



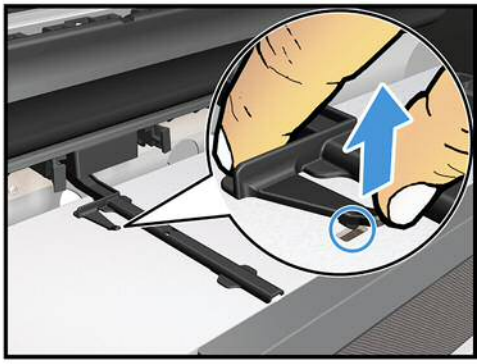
4



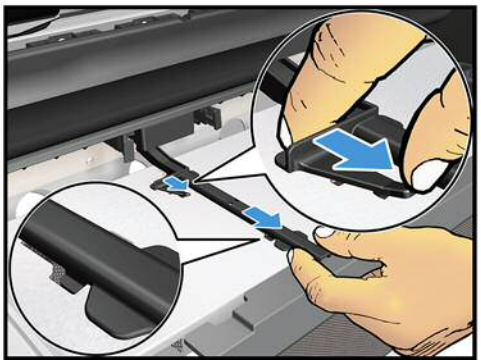
5



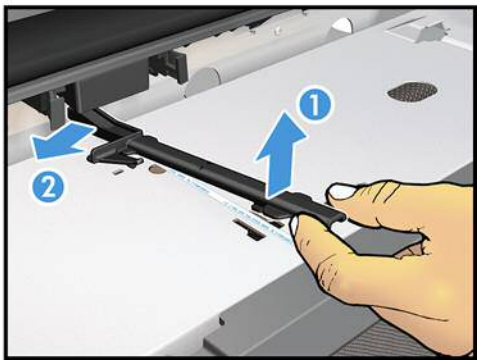
6



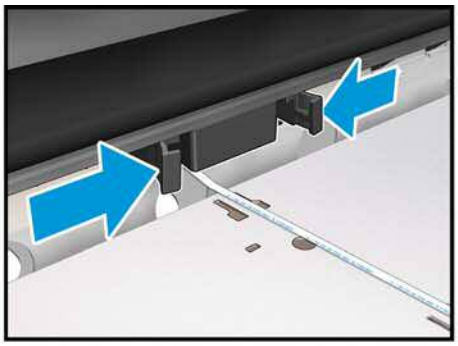
7



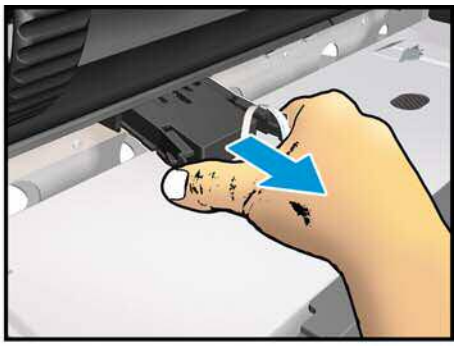
8



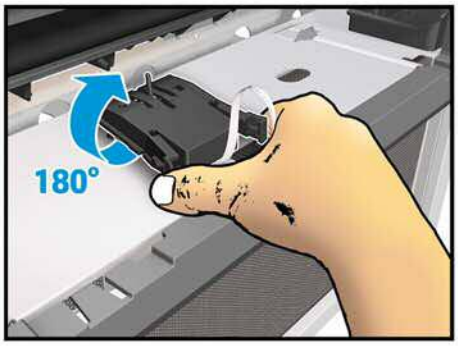
9



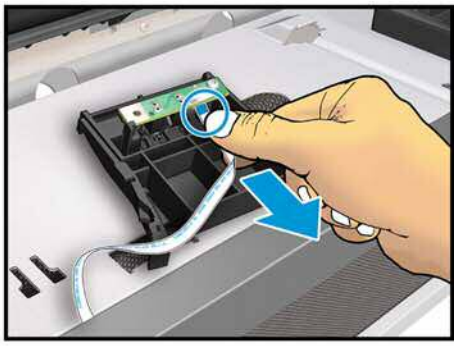
10



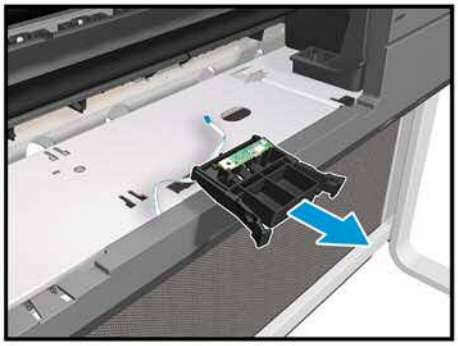
11



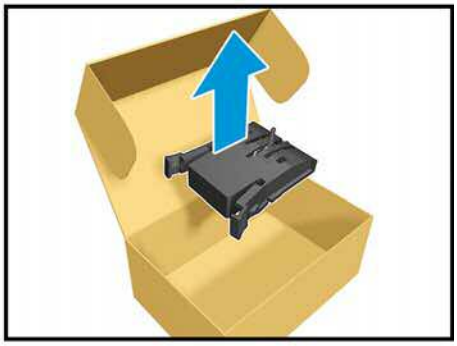
12



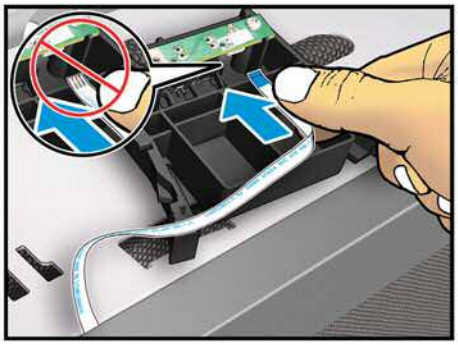
13



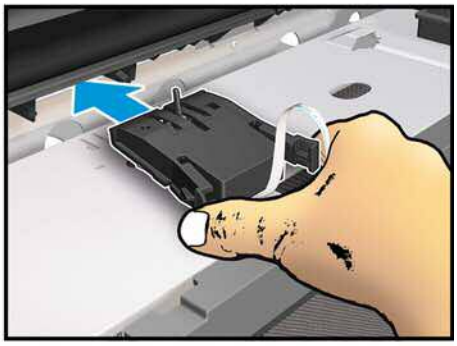
14



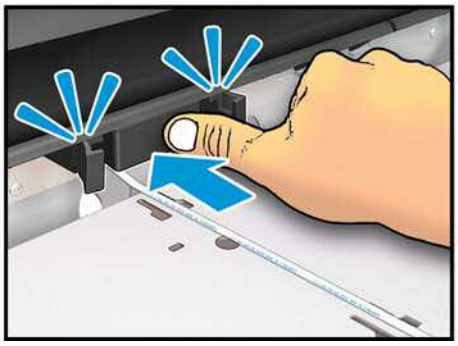
15



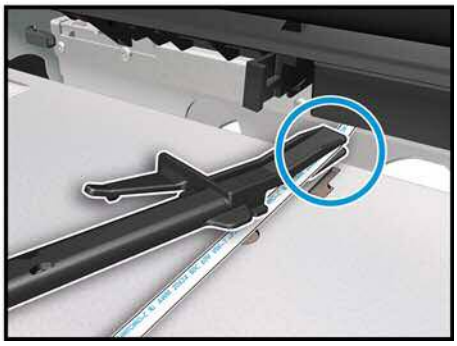
16



17

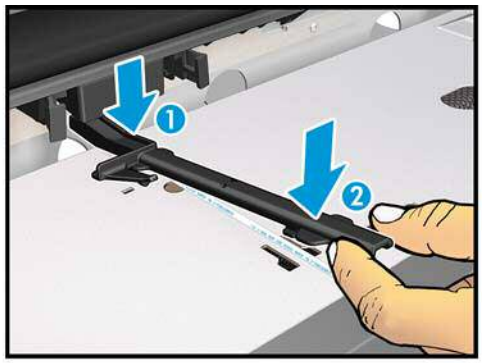


18

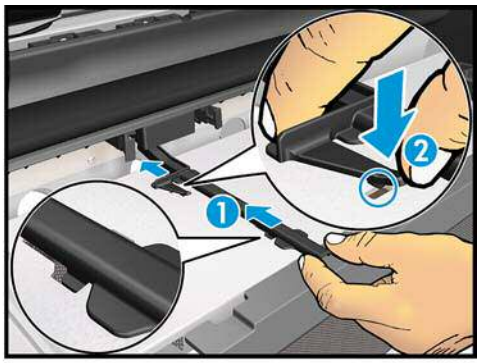


http://www.justmanuals.com

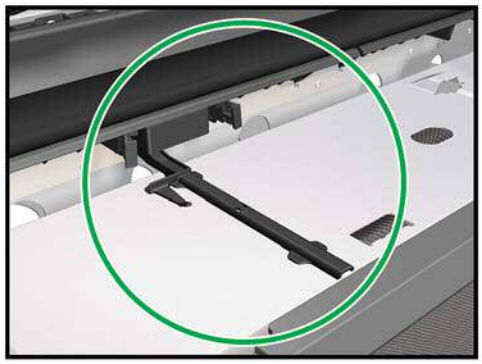
19



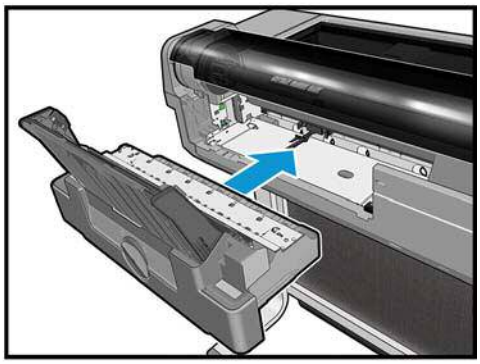
20



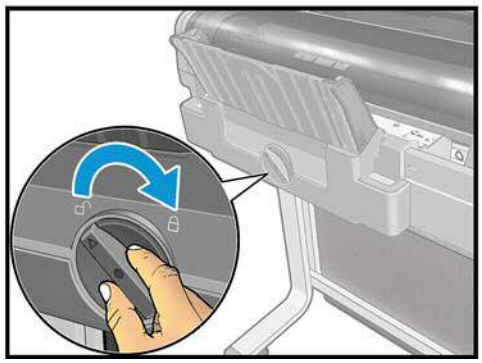
21



22



23

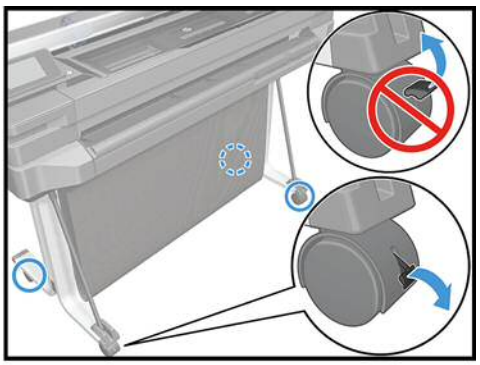


Output Tray flier

1



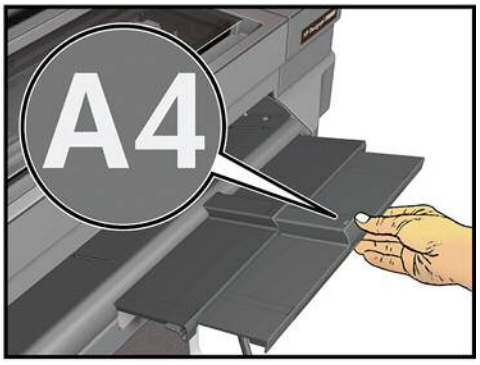
2



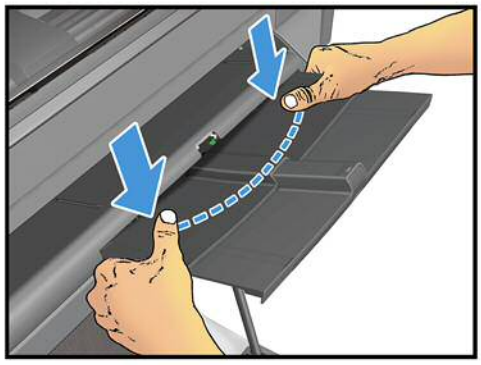
3



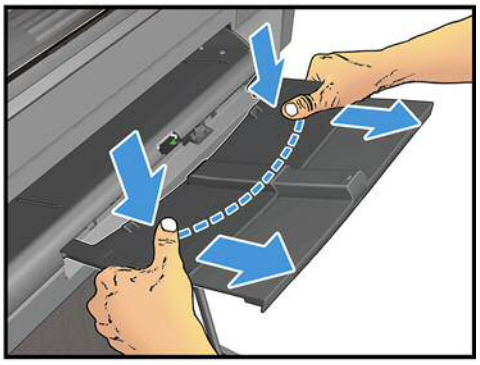
4



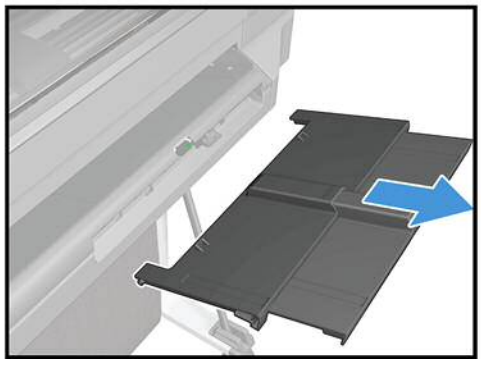
5



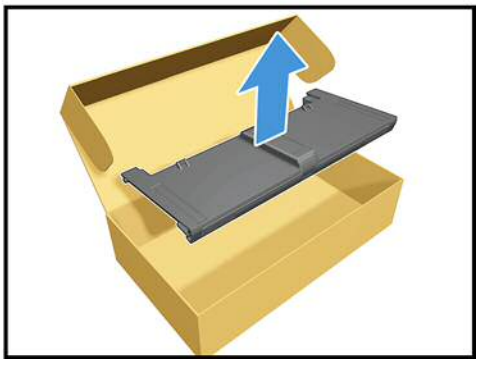
6



7

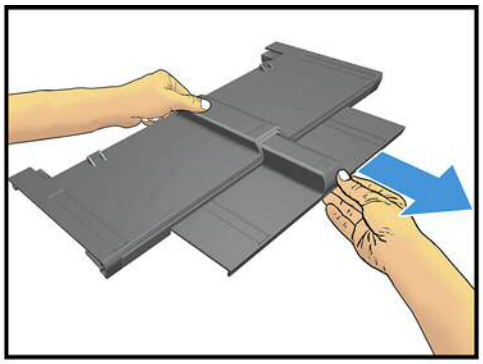


8

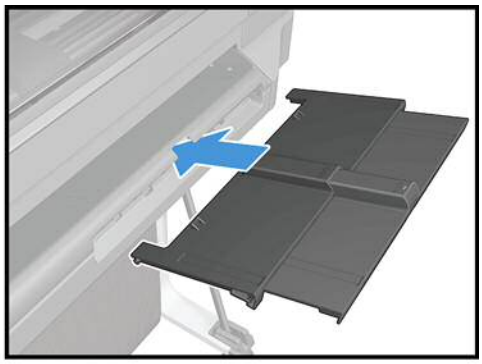


http://www.justmanuals.com

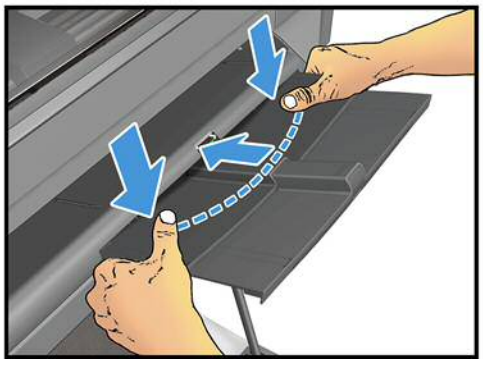
9



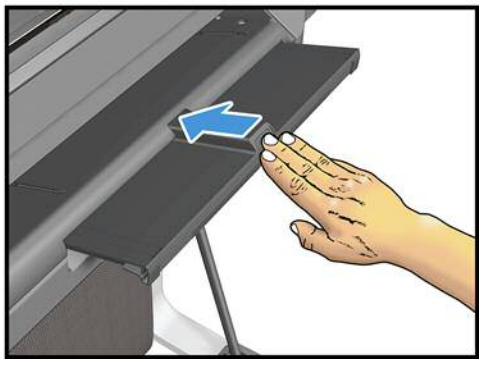
10



11



12

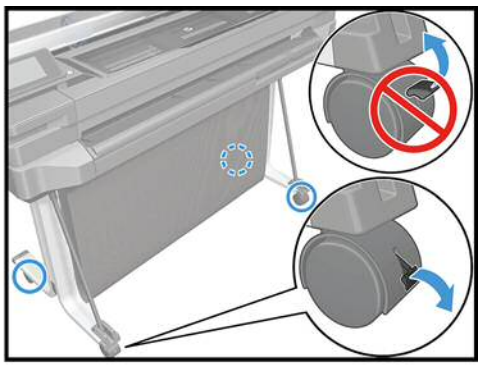


Output Tray Sensor flier

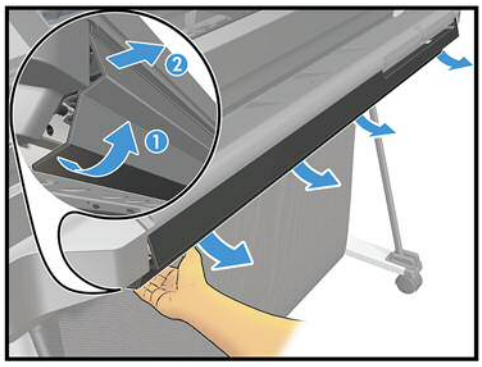
1



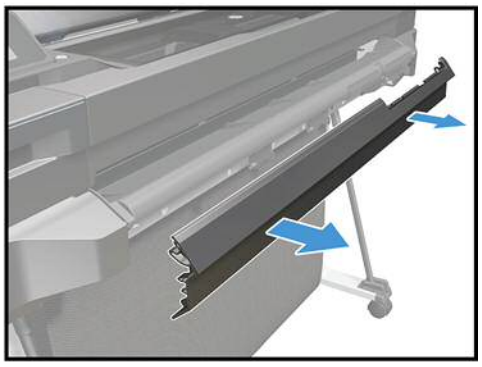
2



3



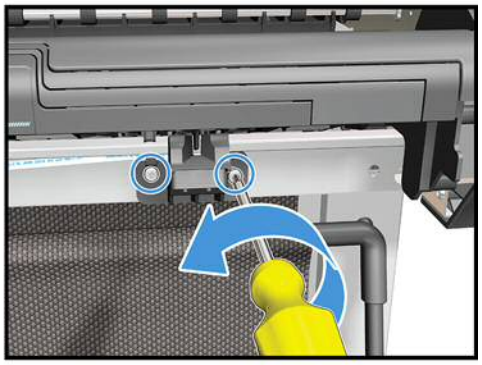
4



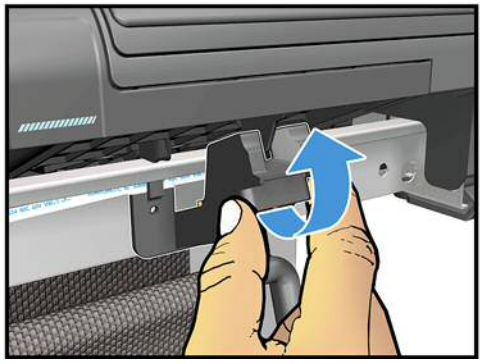
5



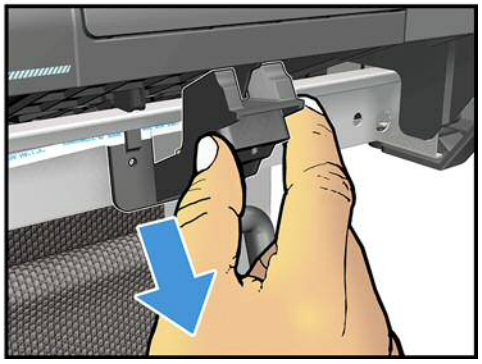
6



7

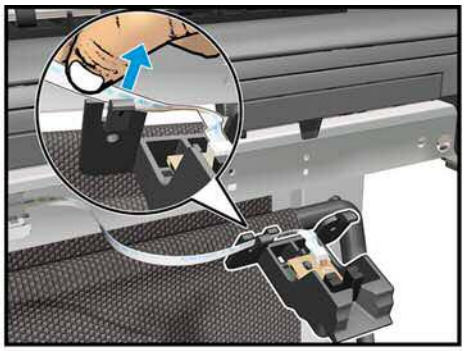


8



http://www.justmanuals.com

9



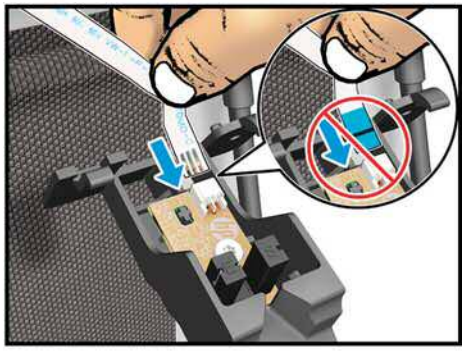
10



11



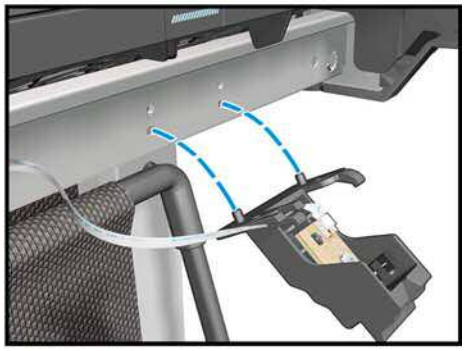
12



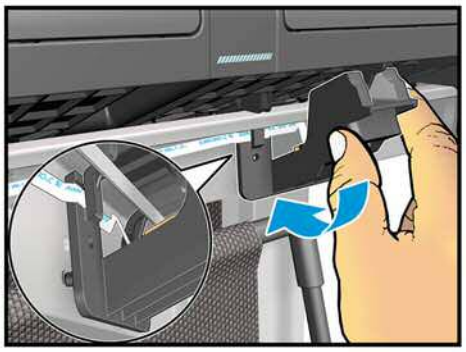
13



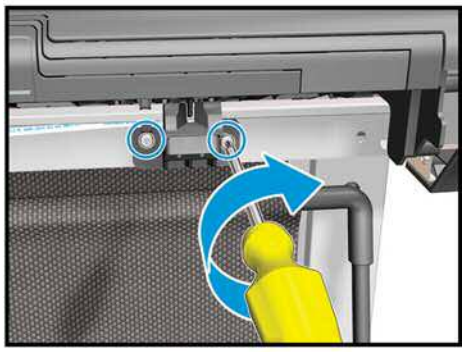
14



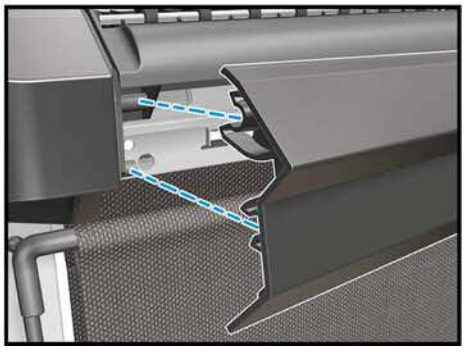
15



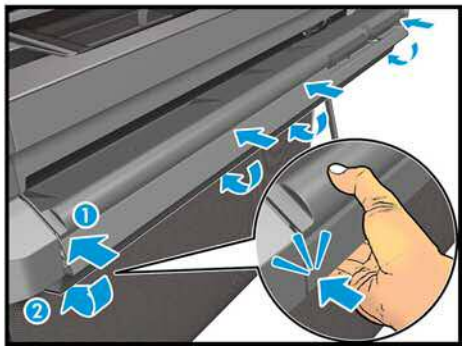
16



17



18



Printhead Replacement Kit flier



http://www.justmanuals.com